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The Need for a National Policy for the Control of Diseases of Animals*

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The interest of the State in diseases of animals traces back to the middle of the last century when we imported catastrophe from the Continent in the form of sheep pox and cattle plague. Both of these are killing diseases, dramatic in their effects, and take no notice of boundary fences, whether the fences exist in reality or in lines upon a map. At that time, and since, the nation's safety boundary was the sea and the integrity of the "Island Fortress" has, in many respects, rested on control of what passed across the dividing sea. The stirring events of the 1865 outbreak of rinderpest or cattle plague, when losses exceeded 10 per cent. of the cattle population, created a national policy of defence against imported, acute, infectious diseases of livestock, a policy which is still, and must remain, in being.

Included in this category is quite a long list of diseases, notably foot-and-mouth disease and rabies. Pleuro-pneumonia of cattle, glanders and epizootic lymphangitis of horses were stamped out and kept out by the operations of the machinery which was made in 1866, and the need for its retention must be evident to all thinking farmers.

This State organization has had a chequered career, in keeping with the national habit! Starting as a "Cattle Plague Department," it became a branch of the Home Office, was transferred to the Privy Council, changed its name to the "Veterinary Department," joined hands with others in the Board of Agriculture as "The Diseases of Animals Branch," performing the principal function of the Board, which, however, collected other jobs as the years passed, notably Fisheries; it finally graduated to the status of a Ministry in 1919, just beating the Ministry of Health to it.

The Diseases of Animals Branch plodded through the years of peace and took note of some of the indigenous diseases of stock as well as those which came from abroad. Sheep scab, parasitic mange and swine fever engaged its attention and there was a Tuberculosis Order away back in 1914. Poultry fluttered into the picture. But it was milk and meat which began really to exercise veterinary and medical minds.

Early in the century it had been established that tuberculosis of cattle, although not entirely the same as human tuberculosis, was in fact dangerous to human beings. Infected milk and meat caused a great deal of invalidity and many deaths, particularly among children. Some local authorities, especially the big cities, the consumers, already had veterinary departments looking after their horse transport, and doing a multiplicity of other jobs. Some of the local authorities also developed highly organized machinery for dealing with diseased meat in big abattoirs. They sent their veterinary officers out into the country to find the tuberculous cows which, in all innocence, were killing the town children. Naturally the rural local authorities disliked the towns continually complaining and actually intruding into the country districts. Starting with the north country and Scotland during the 1920's, more and more counties appointed their own veterinary staffs, whole-time and part-time, to do something about tuberculosis in dairy cattle. There gradually emerged a set of disconnected veterinary services whose *raison d'être* was not animal but human health. But, quite naturally, although some of these services were attached to medical departments, the personnel, being veterinary surgeons, thought more of a good cow than of most human beings, and quite rightly so in my opinion. They concerned themselves with how she was housed and fed, how her calves were reared and how her milk was handled. The clean milk campaign began to flourish. Note, the motive behind all this good work was not the welfare of the cow, but of some unknown, probably misbegotten progeny of parents living in a town slum. An essentially agricultural problem was being attacked on lines of public health and there were actually quite a number of veterinary surgeons who thought that, as the Minister of Agriculture seemed to be slumbering, organized veterinary services might go farther and faster if attached to the Minister of Health.

THE GOWLAND HOPKINS COMMITTEE

However, in 1932, the Prime Minister appointed the Gowland Hopkins Committee—"to consider what practical measures can be taken to secure a reduction of disease among milch cattle in this country . . ."

It is worthy of note that upon this Committee there was but one member of the veterinary profession, a retired director of the Royal Army Veterinary Corps, who made no claim to have intimate knowledge of cattle and their diseases.

The Gowland Hopkins report has been quoted frequently; it aroused considerable interest and no little controversy in agricultural and veterinary circles.

The Committee considered the production and the distribution of milk and their relation to cattle diseases and public health, and stated in conclusion—and this is a very significant statement—"We have confined ourselves to laying down the principles of a long-term policy; for it must be remembered that the control of diseases can only be effected by the consistent application of a scheme designed to cover a long period."

The Committee found that the average life of the dairy cow was only about half that which might be expected under ideal conditions.

One of the most widely quoted statements in the Report is that relating to the recorded disposals of dairy herds; no less than 58·2 per cent. were on account of disease, and the loss of many of the remainder was indirectly attributable to disease. Reproductive diseases accounted for nearly 27 per cent., udder diseases nearly 8 per cent., tuberculosis and Johne's disease nearly 10 per cent., reactors to the tuberculin test 3½ per cent., and other miscellaneous diseases 10 per cent.

MOVEMENTS OF CATTLE

In view of its importance in spreading disease, the Committee drew attention to the extensive movements of cattle. Figures show that 18·3 per cent. of the disposals were under the heading of "Trade." Rather charitably, I think, the Committee did not infer that these disposals were in large measure due to unworthy motives, but I have no doubt that a high percentage of the animals sold through the ordinary market were known to be, or were suspected of being, diseased and should properly have been added to the total of 58·2 per cent. previously referred to.

The increased facilities for transport during the years between the two wars have done much to transfer and disseminate disease from one district to another. This fact was recognized by a previous Minister of Agriculture—Mr. W. S. Morrison—who referred to it in a speech in the House of Commons in July, 1937. It is indeed a thorny problem which successive governments, livestock auctioneers and the National Farmers' Union have, so far, fought shy of tackling. In fairness, I should add that the Auctioneers' Institute has recently been trying to do something about it, and I must congratulate them upon the effort that they have made. I can only hope that it will meet with the success it deserves. Nevertheless, no real progress in the control of diseases will be made until unwarranted marketing is eliminated.

The Committee indicated possible lines of administrative development and recommended (1) an extension of routine veterinary inspections; (2) an active policy for the eradication of bovine tuberculosis; and (3) the grant to large urban authorities of the right to require pasteurization of milk, other than that produced from herds free from tuberculosis.

Now, 12 years later, it is pertinent to ask how much nearer are we to the implementation of these three recommendations?

It is curious that the Committee, having weighed the evidence, recommended that the extended veterinary services should be on a local authority basis, whereas, less than four years later, the steadily growing and vigorous county veterinary departments were compulsorily absorbed into a central authority, the Ministry of Agriculture. This centralization was heralded by speeches in Parliament and elsewhere, which purported to state a case for a national policy on diseases of animals; from these speeches by Mr. W. S. Morrison—then Minister for Agriculture—I borrow quotations freely.

He said: "The present is a most auspicious moment, the Govern-

* Paper presented to the Farmers' Club at the Royal Empire Society, June 3rd, 1946. Reprinted, with extracts from report of discussion, from the *Journal of the Farmers' Club*. (1946. Part 6, pp. 79–97.)

ment has decided upon a great enterprise which involves a centralized State veterinary service to commence an attack upon the problem of animal diseases on a scale and on a front of magnitude which has not yet been imagined."

Again: "It is now proposed to tackle this immense problem as what it is, namely, a problem of diseases of animals, by the diseases of animals' machinery, with a single island service of veterinary officers for the purpose. It is not a problem which farmers themselves can possibly solve. It is the result of many generations of neglect, and one generation of farmers cannot provide a cure for it. But farmers can, if this service is provided for them, and they co-operate with it, rid themselves by degrees of this heavy burden and toil of disease. Nor am I convinced that this problem will be solved under the present system, whereby local authorities, with their varying resources and standards, are grappling with it."

". . . good work which has been done in one county may be hampered and destroyed by less good work in an adjoining county . . ." "The bacillus ignores county boundaries . . ."

He continued: "The present system has led to complaints, on the part of farmers, that they have applied to them in some cases standards which are more rigorous than those demanded of their neighbours living in a different county, and this feeling of dissatisfaction tends to dishearten farmers from co-operating as we should like to see them do in this great battle against disease."

I must, in fairness, interpolate here that to-day many farmers complain of the same inequalities in regard to the requirements of sanitary authorities for the production of T.T. milk.

The Minister concluded: "Healthy cattle are the logical foundation of pure, clean milk. These proposals in the White Paper seek to set on foot this more comprehensive strategy by the creation of a centralized veterinary service for the whole island to combat the diseases of animals and of poultry in all their manifestations."

Bold words these, denoting a high endeavour—but what happened? Two years later the war started—the Attested Herd Scheme was virtually suspended and the Licensing of Bulls Act repealed—these, in spite of repeated protests by those who saw in the war an opportunity to concentrate more intensively upon the control of animal disease and the improvement of livestock as a means of increasing the supplies of milk and meat.

The Animal Health Division

It is difficult to separate out from the Minister's speeches that which is truly policy and that which deals with the machinery for implementing policy. However, the new State Veterinary Service was created and given the significant title of the "Animal Health Division" of the Ministry of Agriculture. The significance lies in the reference to health instead of disease. It was hoped that the new service, with full authority to promote and co-ordinate, would aim at keeping livestock healthy and productive to the benefit of agriculture, and, in doing so, would contribute substantially to the demands of public health. In retrospect we can now see that the vigorous, if somewhat inco-ordinated, local authority veterinary services were forced to march in step with the Civil Service—a slow, slow march! Is it surprising that some of the more enterprising veterinary officers appear to have lost their drive and initiative?

In 1943 the Memorandum—Measures to Improve the Quality of the Nation's Milk Supply—was introduced. Its principal objects were (1) to improve the health of the dairy herd, and (2) to improve the quality of the milk.

It was confidently anticipated that the Animal Health Division would exercise general supervision over all the aspects of milk production, and, indeed, the profession was led so to believe. It now appears probable that the duties of the Animal Health Division will be restricted to the disease aspect and that a number of "experts" drawn from other spheres and whose duties will overlap, will visit the farm to advise on the various aspects of milk production and animal health. It is difficult to foresee the effect of all this upon the control of health—but it is easy to see the control of farming.

Alas! The Animal Health Division, instead of expanding and assuming additional responsibilities, is gradually shrinking into the position which it occupied prior to 1938, as the Diseases of Animals Branch—so belying the change of emphasis inherent in its title and the promises made by the late Minister of Agriculture at the inception of the Centralized State Veterinary Service. The teaching in our veterinary colleges to-day, and the recommendations of the Loveday Committee on veterinary education, emphasize the transcending importance of the promotion of health and preventive medicine. This "backpeddling" policy of the Ministry of Agriculture in respect of its own veterinary officers is calculated, therefore, to have unfortunate repercussions upon the calibre of the undergraduates who seek to enter the veterinary profession.

Inspections

I would remind you that at the inception of the Centralized State Veterinary Service an assurance was given to local authorities that the numbers of inspections of dairy herds within respective counties would be at least as frequent as that which existed prior to the transfer of responsibilities.

Now, however, the Minister of Agriculture has ordained that Accredited Herds, the milk from which is heat treated, shall, for the time being, be inspected only once a year. This is indeed a retrograde step and is tantamount to an admission that in the opinion of the Minister pasteurization is an alternative to herd inspection. To substitute control of the diseases of animals communicable to man by the heat treatment of animal products, or by-products, is just playing with the problem.

In a recent debate in the House of Lords, those doughty champions of agriculture—Viscount Bledisloe and the Earl de la Warr—gladdened my heart by their utterances on the need for a national policy for the control of animal disease, and both issued the warning that I have myself so often—and so ineffectually—pleaded, that the Government should not regard pasteurization as a substitute for animal health, but as a measure complementary to it. Is this a case of two great minds and one lesser mind thinking alike, or dare I presume to believe that my cry has reached the Upper House. I have besought the Ministry of Agriculture, and, like the prophets of old, I have cried unto the Lord; there has been no reply at all from the Ministry, but maybe the Almighty, awake but busy, has referred my appeal to the House of Lords!

Personally, I very much doubt the value of one annual clinical inspection, particularly in the case of flying herds, and I plead for the return of the quarterly examination of all accredited herds. In this I have the support of the National Farmers' Union, very many of whose members have learned to appreciate the value of those official quarterly contacts.

It is worthy of note that the late Dr. James Menton, the County Bacteriologist of Stafford, reported that the biological examination of milk samples from herds submitted to quarterly clinical inspection revealed 0·60 per cent. infection with tubercle bacilli, as against 6 per cent. infection in herds which were not so inspected.

I have dwelt upon this aspect at some length because I feel that this vacillating policy in regard to herd inspection is getting us nowhere.

No Settled Policy

Farmers are exhorted to improve their livestock, to use proven sires, to milk record, and a bonus is paid for tuberculin tested milk; there is, however, so far as one can ascertain, no settled policy to correlate the various schemes of livestock improvement and disease control. Too often at the present time, the advantages of these are cancelled out by existing practices and shortcomings such as the dissemination of disease by indescriminate dealing, etc., the use of insanitary buildings and the gross inadequacy of water supplies and sewerage facilities. The benefits which could accrue from disease control measures are vitiated by a piece-meal policy.

No paper on the subject we are discussing to-day would be complete without reference to the need for adequate supplies of water. It is a never failing source of wonderment to me that farmers, and their leaders, have tolerated so long, and so, relatively, uncomplainingly, the Government's neglect of this, the most important single factor in the promotion of health and control of disease.

The White Paper entitled "A National Water Policy" stated "The importance of adequate supplies of piped water for agricultural purposes cannot be over-estimated if efficiency in agricultural production is to be achieved."

Veterinary opinion will support the belief that an important contribution in the control of disease in general, and of parasitic diseases in particular, is the practice of carrying the plough around the farm. This policy is, however, incapable of being implemented whilst so many farms have fields either without any water supply at all, or with a water supply of very doubtful or impure nature. Indeed, I am satisfied that much harm has in many cases been done to the health of livestock through farmers—owing to the ploughing-up campaign—being compelled to unfence for drinking purposes, ponds and ditches which had been fenced off for years and often used for the reception of sewage from cowsheds or other farm buildings. Not infrequently, these ponds and ditches contain the effluent from more than one farm. This is an objectionable practice and an important potential source of danger in the spread of disease from farm to farm. Contaminated drinking water, inadequate sewerage facilities and inefficient drainage may be severally or collectively responsible for the spread of disease, including mastitis, tuberculosis, contagious abortion, Johne's disease, fascioliasis, parasitic bronchitis, and parasitic gastro-enteritis.

Recommendations

The National Veterinary Medical Association, in a memorandum on this subject, recommended that priority facilities for water supplies, sewerage and electricity should be given to those farmers who undertake (*a*) to control disease in their herds, and (*b*) to engage in the production of high grade milk. As additional inducements to these farmers, we urged that (1) the Government grant further subsidies for disease control; (2) the Milk Marketing Boards take the necessary steps to assist these milk producers either by providing capital without interest or at a low rate of interest, or by underwriting the milk producers in respect of the erection of new, or the conversion of old, milking sheds or milking parlours, the provision of milking machines, water bowls, etc.

Up to date, the only helpful comment concerning these recommendations has come from the Milk Marketing Board, and I have pleasure in stating publicly that this helpful attitude is in keeping with my experience of the Board.

I was interested to note that the Earl de la Warr, in the recent debate in the House of Lords, previously referred to, made recommendations in connection with this, and other aspects of disease control, somewhat comparable to those of the National Veterinary Medical Association. It is very gratifying to find that the Chairman of the Agricultural Research Council and the National Veterinary Medical Association have so much in common. I trust, however, that his suggestions will meet with a greater response than have those of my Association!

The problem of bovine tuberculosis has recently been reconsidered independently by the National Veterinary Medical Association, the National Farmers' Union and the Ministry of Agriculture, and schemes for its control or eradication have been prepared by each of the three bodies; the National Veterinary Medical Association and the National Farmers' Union have each submitted a memorandum to the Ministry of Agriculture, and we hope that more than formal acknowledgment of these documents will follow without undue delay. Bovine tuberculosis is one of the more spectacular diseases which has aroused public interest, for here is a disease affecting animals which are privately owned, but whose products —meat and milk—though almost essential to the diet of most normal human beings, are capable of transmitting disease which may result in the death of the consumer. It is, however, capable of being progressively controlled until the point of eradication is reached, but a bold policy will be required as many, if not all, of the long established and long accepted farming practices will have to be overhauled and radically altered. On the Government's handling of this problem its ability to control other diseases is likely to be assessed.

The Approach

Fundamentally, our approach to the problem of the control of animal disease must be for the benefit of livestock and their owners. By all means protect the human from animal disease, but let us do it by protecting the animals themselves. Human health has provided the incentive for a lot of good but unco-ordinated work; nevertheless, it is chastening to reflect that even to-day the American Army refused to expose its troops to the risks of drinking British milk—and our meat inspection standard is probably as low as any in Europe. In the military forces of the U.S.A.—the most highly specialized in the world—the responsibility for the supplies of milk and meat devolves upon the veterinary profession, as it does in other progressive countries. The present would appear to be a favourable time for the Government of this country to reorientate its ideas upon meat inspection.

In the early days of the war, the National Veterinary Medical Association created its Survey Committee to assess the incidence of disease amongst our farm livestock and to evolve plans for control. We found that the diseases of mastitis, brucellosis (contagious abortion) and infertility were responsible for a loss to the nation of some two hundred million gallons of milk per annum; that owing to the diminution in the yield of milk and to the impaired quality of the milk from animals affected with these diseases, there was a loss of over 83,000 tons of a solid mixture of protein, sugar and minerals, and a loss of over 31,000 tons of butter fat.

As the result of the Committee's findings a Scheme for the Control of Certain Diseases of Dairy Cattle was agreed by the veterinary profession, the National Farmers' Union and the Ministry of Agriculture. This was introduced in the middle of 1942; only about a quarter of a million head of cattle are registered within it, but its benefits are by no means confined to this number and, in addition, the education value of the Scheme has had, and is having, a wide and ever-widening effect.

It was not launched as a scheme to eradicate disease, but as an attempt, in a desperate time, to reduce disease in order to increase the amount of marketable milk.

More recently we have made a survey of the parasitic diseases of cattle and made recommendations concerning the control of the more serious. (1) Parasitic gastro-enteritis (stomach worms), probably the most insidious and widespread of all diseases affecting young cattle; (2) fascioliasis ("fluke"), which in 1942 caused 1,500 tons of bovine livers to be condemned; (3) the warble fly and larva, the ravages of which are responsible for an immense annual loss of leather, meat and milk. In terms of leather, "warbled" hides represent a loss of ten million boot soles annually; at a time like the present, with the world shortage of leather, control of warbles should be a matter for joint action by the Ministries of Supply, Food and Agriculture. We received interesting evidence from the Hide and Allied Trades Association on the subject of warbles. When they referred to it in terms of "loss of soles," I must confess that I and my colleagues, having before us four representatives of that Association, could hardly imagine four individuals less likely to be interested in the saving of souls! Centralized slaughtering has made it possible to assess the losses due to these and other diseases, and also to see at a glance the areas of the country which are the most heavily infected.

It is estimated that diseases of sheep represent a loss of over a million pounds sterling per annum; yet the majority of these diseases are amenable to control. We are at present engaged in drawing up a plan for improving veterinary services in hill sheep farming areas.

Since the National Veterinary Medical Association set the example, through its Survey Committee, there have been Government Committees on hill sheep farming, the introduction of field testing of poultry for B.W.D., and the testing out of crystal violet vaccine against swine fever. But the cow still holds the stage and will continue to do so. Veterinary surgeons would like to approach the numerous problems before the cow becomes diseased, to go back to her calfhood, even to the pre-natal period. Judging, however, from the Government's reversal of the White Paper policy on milk, it seems that the same old situation is to be the rule as when, in 1881, cattle disease was under the Lord President of the Council, agricultural statistics dealt with by the Board of Trade, woods and forests by separate commissioners, and the First Lord of the Admiralty was in charge of the Bill on Agricultural Holdings. What is everybody's business becomes nobody's business!

The need for a national, as opposed to a parish, policy on control of animal disease is too apparent to require elaboration. As Sir Francis Floud wrote in 1937: "The control and extirpation of the diseases of farm livestock must always be the primary duty of the Department of State responsible for the welfare of the agricultural industry. No other single cause has inflicted such serious losses on farmers throughout the ages since the days of the plagues of Egypt and the murrain which destroyed their cattle." Has, then, the appropriate Department of State got a policy?

Statistics Are Needed

There is a clear policy to protect British livestock from foreign diseases and the machinery works well on the whole. Admittedly, foot-and-mouth disease enters with some regularity, but that is because we are a foreign-meat-eating nation. Modern means of transport strain the machinery a little, as when the Royal Air Force playfully introduces animals as members of a bomber crew, but the policy remains steady while the world is shrinking. What of the rest? During its eight years' of existence the State Veterinary Service has not published a report of its proceedings, so it is not very easy to estimate what it is doing, or what—and if—it is thinking. Despite shrewd guesses, we do not know what animal disease costs the nation in cash or in suffering. We have no system of statistics such as the Registrar General's, and it puzzles me to know how a sound judgment can be made without having a reasonably accurate assessment of the magnitude of a problem and of the probability of success in such measures as are applied to it. It seems to me that there are a great many schemes, but few plans. Is it unfair to suggest that expediency is the commonest motive for action? The leather merchants disliked warbled hides, so we got a Warble Order. Not that I object to an attempt to reduce warbles, I would like to see the Order reintroduced, but what if the same expenditure of effort were directed to controlling internal parasites instead? Or to finishing off sheep scab instead of having it recur as surely as Christmas? Is the rearing of healthy calves a surer bet than the detection of diseased cows? At what point in the availability of foodstuffs would it pay the country to stop feeding swill to pigs? Would not a Trichomoniasis Order be of greater benefit than the Contagious Abortion Order of 1922? Somebody should know the answer, but somebody does not.

The reports prepared by the Survey Committee of the National Veterinary Medical Association have drawn attention to some of the severe losses suffered by the nation in general and by the agricultural community in particular. The figures which we give are

arresting; we do not, however, pretend that they are as accurate as they should be, or as they could be, if there was provision on a national scale for collecting, collating and analyzing data on the incidence of animal diseases.

It is clear then that reliable information in a sufficiently large cross-section of herds and flocks of the country would be of the greatest value and for the following purposes:—

(*a*) To show the relative incidence and economic importance of the more common diseases.

(*b*) To indicate in what directions further investigations could most profitably be conducted or extended.

(*c*) To indicate in what diseases control measures could usefully be put into operation.

(*d*) To measure the overall effectiveness of such control measures as are put into operation for a given disease.

(*e*) To show wherein farming practices affect the incidence of disease.

For these purposes it is obvious that data should be obtained from as large a part of the animal population as possible, ideally all herds and flocks, and that the data should be collected on such a basis and from such a cross-section of the herds and flocks of the country as will provide nationally representative data and—perhaps the most salutary aspect—that they should be summarized at yearly intervals. The data will, of course, need to be collected at shorter intervals and it would be desirable to arrange for some system whereby each disease incidence is recorded on the farm at the time when it occurs, the records being collected quarterly and analyzed yearly.

Field Surveys

I have been privileged recently to read an article on "The Economic Importance of Disease in Dairy Cattle," by the Director of Herd Improvement to the New Zealand Dairy Board, and his concluding words admirably sum up the position. He says: "I suggest that field surveys are indispensable for defining the nature of the prevailing disease problem, and I further suggest that they must inevitably become the yardstick on which can be recorded the success of any combined attack on the diseases of dairy cattle."

Mr. Chairman, I undertook, rashly, and perhaps unwisely, to prepare a paper on "*The NEED for* a National Policy for the Control of Diseases of Animals," and I hope that I have not failed. Your secretary has, however, equally rashly, and certainly very unwisely, by the removal of the first three words attempted to impose upon me the obligation of propounding a national policy. Quite frankly, I think that this is the duty of the Minister of Agriculture, and as my natural modesty inclines me to the belief that he would be unlikely to adopt, at least without considerable modification, my proposals for such a policy, I intend to confine myself to making a few general, and some specific, observations.

1. It has been pointed out that disease recognizes no geographical boundaries, and, as the incidence of disease is fundamentally affected by conditions of farming and farming practices, any national policy must be framed upon a broad conception of the problem, and it must be elastic.

2. Most diseases are associated with a departure from the accepted tenets of good husbandry, be it animal or plant; it is necessary, therefore, that measures shall be directed towards the promotion of positive health.

3. Positive health can only be obtained by improvement in methods of breeding and rearing of livestock, cultivation of the soil and pasture improvement, improved conditions of housing, improved water supplies, etc.

It will be seen, therefore, that a pooling of the knowledge and energies of workers in many allied sciences is required; in short, it must be a team job carried out in the team spirit.

The part which the State will play must depend upon a number of factors. It is recognized that nowadays many kinds of property are not regarded as being held entirely for private use and profit, but also in trust for the general community. The State, as representing the people, is therefore interested to see that private property, including livestock, is managed efficiently. In the case of agricultural produce, affecting the nutrition and health of the general public, it seems likely that intervention by the State will increase.

The broad purpose of veterinary services which can be regarded as "public" must be to ensure a standard of positive health and protection from infectious diseases which will allow maximum productivity as dictated by the interests of the livestock industry and of the nation.

These services may be classified as:

(*a*) Prevention and therapeutic treatment of individual cases in animals which, although owned and managed privately, contribute to the public.

(*b*) Control of diseases which hamper production or impair products (*e.g.*, tuberculosis, swine fever, parasitism, mastitis, infertility).

(*c*) Supervision of breeding, rearing, feeding, marketing and transport—in short—animal husbandry.

(*d*) Supervision of production methods, *i.e.*, general and special hygiene.

(*e*) Control of specific epizootic disease, *i.e.*, foot-and-mouth disease, rabies.

(*f*) Control of import and export of livestock and goods from the angle of animal health.

(*g*) Supervision of products intended for human consumption, *e.g.*, meat inspection.

This classification breaks down in many respects, but it does illustrate the advancing degree of State interest in the output of private enterprise.

I fear, Mr. Chairman, that members may by now have formed the opinion that my paper is as incoherent and as unco-ordinated as is the policy of the Government, which I have criticized. May I, however, in conclusion, leave you with this thought.

The need for central planning and direction of services is self-evident. Existing legislation, notably extended by the Agriculture Act of 1937, gives power to the Ministry of Agriculture and Fisheries to deal with animal health in the widest sense. Central authority is therefore in being, and it would seem logical that it should operate, in this field, through the instrument of its Animal Health Division. Events have shown, however, that the Ministry does not view the functions and potentialities of veterinary science in the same light as does the profession itself.

The State Veterinary Service, whole-time and part-time, is very willing to be employed nationally, but it is difficult to discern anything which could be dignified by the term National Policy. Remembering that livestock and their products constitute more than two-thirds of agricultural output, the need for clear guidance is imperative. The veterinary profession is aware of it and is eager to be used on national lines, but not, I repeat, not to be nationalized.

Discussion

Mr. J. W. Salter Chalker, opening the discussion, and proposing a vote of thanks to Mr. Steele-Bodger, said that he had known Mr. Steele-Bodger now for several years. Mr. Steele-Bodger was not only well versed in the political side of veterinary affairs, but he was also a veterinary surgeon with a large private practice, enjoying the confidence of his many clients. His experience fully qualified him to address the Club on that very important subject.

His (Mr. Salter Chalker's) experiences with the Ministry had not been quite so unfruitful as Mr. Steele-Bodger's appeared to have been.

The paper started with a skeleton history of successful efforts to control and eradicate disease, and while it was in no way a complete report of progress, it was as well to note that in recent years great strides had been made in many of the problems that existed a few years ago.

One of the happy hunting grounds for the spread of disease was the local market. All types and classes of cattle were herded or tied together; only animals in an advanced stage of disease were removed from the market by the veterinary surgeon; the teats of dairy cows were drawn by many and various people, and an infected quarter in one cow could be, and was, spread to others. No facilities were provided for washing hands in disinfectants, nor was there any apparent inclination for individuals to do so after knowingly or unknowingly drawing a quarter infected with mastitis, and there was no segregation of unsound animals in lairs apart from healthy animals either before sale or after sale. Reorganization of our marketing system was essential in the interests of animal health, and here we needed the co-operation of the auctioneers.

Mr. Steele-Bodger had gone on to refer to the general supervision of all aspects of milk production by the Animal Health Division of the Ministry, but he, personally, was never in favour of that Division adding that to their many functions. With the present shortage of veterinary surgeons (which was likely to exist for some years to come) he could not imagine it to be in the best interests of animal health for a trained veterinary surgeon to be advising on building structure, drains, light, ventilation, milk sampling, etc., wasting his time on functions which could easily be performed by individuals specially trained for that purpose.

The paper also referred to the discontinuance of quarterly examinations of all accredited herds. Here, in principle, he agreed. Annual inspections were the very minimum, and, in consequence, did the minimum amount of good, but the position was that there were approximately 28,000 accredited herds and 156,000 non-accredited herds. Vast numbers of these non-accredited herds had never been inspected by a veterinary surgeon. Because of the shortage of veterinary surgeons it was impossible to do all, and it seemed reasonable to him that in the interests of the public it was better to inspect all herds at least once a year than to inspect the better herds four times a year and some of the remainder not at all.

He was pleased that the paper placed emphasis on water supply. This was fundamental. He would be bold enough to say that inadequate and improper water supplies were the cause of the greatest losses to the livestock farmers and the country in milk, meat and disease. They were also responsible for uneconomic use of pastures. The Ministry had a 50-50 scheme which at the moment was somewhat handicapped because of lack of supplies and the difficulties of getting local authorities to co-operate.

The work on bovine tuberculosis had gone very much further than the paper suggested. The N.F.U. had been in constant touch with the Ministry for some long time and had jointly considered work done on this subject by many countries. It had been agreed to adopt the free area scheme policy. General principles had already been ageed and it was hoped to start an area at an early date.

It should be appreciated here that the main reason for the hold up had been the man-power position. For example, if it were decided to make Carmarthen in Wales an area under the scheme (and he only quoted Carmarthen as an example because he did not think an area had been decided upon at the moment) because of its high percentage of attested herds and satisfactory history of the disease, in that area alone there would be some 66,000 head of cattle with no veterinary history at all so far as tuberculosis was concerned and it would need 50 veterinary surgeons to deal with that area alone.

In his opinion, it was essential to have a national policy for the control of diseases of animals, developed by a National Council representing all sections of the industry. He felt much of the excellent work done by the A.R.C. and all its research workers was lost for want of proper development in the field. There were some veterinary surgeons—due, to some extent, to pressure of work—who were not conversant with all new methods of treatment and technique, and there appeared to be a lack of efficient facilities functioning in a way to enable them easily to acquaint themselves with latest developments.

The farming community to-day were very anxious to eradicate or control diseases in their herds and flocks. They were not only concerned because of the part it played in the economy of animal husbandry and their appreciation of the fact that British agriculture would depend in the future on sound development of the livestock section of the industry; they were conscious of their obligations to the public and they appreciated that for marketing schemes to be a success it was essential to enjoy the confidence of the purchaser.

In addition to a national policy, national co-operation was absolutely essential; all would have to co-operate—the Government, the veterinary profession, the auctioneers, the N.F.U., the Milk Marketing Board, and, last but by no means least, the farmer. It was the farmer who would have to carry the baby and who would finally be responsible for its development. It was only in this way, he felt, that the most would be made of the efforts of the research worker, whose labours had done so much in recent years for the improvement of health in the livestock in the industry.

Dr. R. F. Montgomerie: It was with real pleasure that he seconded the vote of thanks to Mr. Steele-Bodger, and not simply because he had read to them a most interesting contribution, but through his having introduced a subject which was difficult to handle, but which must yet be faced by all who had the interests of British agriculture at heart.

When he heard the title of Mr. Steele-Bodger's address—that wa the extended title—he wondered if the writer intended to plead that we had no national policy for the control of animal disease and badly needed one, or if he intended to justify an existing policy. Frankly, he was left in some doubt as to his intentions; he thought Mr. Steele-Bodger believed we had a national policy, but found it hard to accept that it was functioning.

What must be emphasized, the speaker thought, was that prior to 1937 our national policy—and he took the date 1937 as the date of the passing of the Agriculture Act—had a very limited scope. It attempted the control of those diseases which were, or might be, amenable to what could best be called "veterinary police work." When the making and enforcing of Acts and Orders could, or might, effect a level of control, the Diseases of Animals Branch operated, but beyond that point it hardly functioned. The Ministry of Agriculture could take great credit for the beneficial effects of its police work of the days prior to 1937; it had cleared the country of certain dread diseases and kept our stock free from them, it had repeatedly stamped out infections introduced from abroad and it had effected a good level of control of the few endemic diseases it had tackled. But if a disease was not amenable to control by police measures, it was very largely left alone. That, broadly, was the policy of those days. While a few leaflets were published, perhaps as a token suggesting the use of the educational weapon, and while the Veterinary Laboratory did exist (he exaggerated, but he still used the word "exist"!,) and while a few other activities were engaged in, the Ministry's policy appeared to be to regard its section which dealt with animal disease control as a professional police service. There was no policy for the control of bovine tuberculosis, unless one was forced to accept the Tuberculosis Orders as illustrating a policy—and they could be little more than illustrations, because it could not be contended that their operation would materially influence the incidence of that disease.

It was, in his view, idle to speak of the work of the county veterinary officers of the pre-1937 decade or of the growth of tuberculin-tested herds of those days as part of a disease control policy. Valuable as was the work of these officers and the effect of the Milk (Special Designations) Orders, the effort was directed towards the improvement of the milk supply. It helped to lay valuable foundations, but he contended this country had no national policy for the control of bovine tuberculosis prior to 1937. If they objected to that statement, he would give way and admit there was a token policy in the operations of the Tuberculosis Order, but disease did not respect tokens. Great Britain looked on the bovine tuberculosis problem through the eyes of its medical officers and acknowledged a need to protect its child population from the dangers of tuberculous milk; it almost completely ignored the use of veterinary spectacles and so failed to tackle one of the grave problems of the animal husbandry of this country—bovine tuberculosis.

His contention, then, was that the pre-1937 national policy for the control of diseases of animals was almost entirely based on the use of police methods and, therefore, could only be applied on a very limited scope—to those diseases amenable to control by those methods.

Trumpets flourished in 1937 and Mr. Steele-Bodger had quoted their tune extensively. Many of them prepared to follow that band, but some had tired of waiting for it to move off from the parade ground. However, let them be fair. This was a new policy, well exemplified in the title of the Animal Health Division, but he, for one, did not see it operating as actively and as extensively as one had expected. We must, however, remember that within two and a half years of its introduction we had war.

Possibly the new policy needed three or four years to move our Civil Service machine, and the six years in which we should have seen some fruition had been completely blighted by the fight for our very existence. He did see many suggestions that things would have been different had the Animal Health Division had a normal run since 1937, but, if his scanty information was correct, he suspected we were not to see that Division have the chance it was promised. He had envisaged it bringing within its orbit, with a view to helping the establishment of positive health, schemes which it now seemed were divorced from it. He was saddened by the feeling that the encouragement to expand its field of service, to initiate and to drive with full forcefulness, to venture into new fields and take every reasonable risk was somewhat lacking. He only hoped he had no reason for pessimism; he would hate to think that some deadening hand was likely to take the edge off the spice of life to the professional man—the fearless expression of opinion honestly held, the chance to put into practice the theories he had built and the attempting to do what he believed was sound even if attended by risk.

He was taught to accept the movement of straws as indicative of the direction of the wind. He believed he had seen straws move, and he feared they denoted some whittling down of work they foresaw being accomplished by the Animal Health Division when it was created. Mr. Steele-Bodger was apparently possessed by the same fear and he must be better informed than he (Dr. Montgomerie).

He, for one, did see the new policy, which would relegate the old veterinary police work to a minor place and put action to improve the health of our herds and flocks as the first function, appearing, but he had not time to enumerate instances. He felt, however, that the Animal Health Division was only allowed to perform as would a timid child, whereas it had the experience of a profession more than one hundred years old behind it. It could, and must, be bold and fearless, encouraging initiative and risking criticism. It must not be hemmed in as a tottering child, but be given the scope and confidence one extended to the experienced and the mature.

What ailment afflicted the new policy, preventing it from introducing a Veterinary Therapeutic Substances Act which would control the production of biological products used for the prevention and treatment of animal diseases? That was a personal hobby horse, and he would avoid the temptation to ride it further.

The success of our new national policy might be judged by the action taken in respect of just a few diseases, although the picture should be viewed from afar so that the whole prospect was seen and appreciated. Since Mr. Steele-Bodger had allowed tuberculosis to bulk largely in his paper, he could not but refer to it again. He (the speaker) welcomed the attested herds scheme as being the first effort to tackle that disease as an agricultural problem. He accepted it as a preliminary effort, designed to gather together into certain herds cattle which were free from tuberculosis, to live on and produce their kind in an environment free from tuberculous infection, and to leave the infected in other herds where they could do no harm. It seemed the first, and a very logical, step towards the eradication of bovine tuberculosis. But tubercle-free milk—a public health problem—kept raising its head and confusing the issue, further confounded by the payment of bonus on milk produced.

Was there a growing tendency to forget that we were tackling an animal disease problem and to imagine we were still in the old position of protecting the milk-drinking public? Recently he travelled through an upland district which he knew as a great cattle rearing area and one in which the possibilities of the eradication of tuberculosis had been demonstrated. Then, those years ago, hardly a farm produced milk for sale, but last week he saw at every farm road one or two milk churns awaiting collection by the creamery lorry. He could not do other than speculate on how things had changed. He was driven to the conclusion that the bonus on milk produced from attested herds had had its effect. The milk in those churns should have been rearing calves. Should not our attested herd scheme be redesigned to make it a real implement for cleaning up our herds? Should not the farmer who was cleaning up in an approved fashion be heavily subsidized? Should not a handsome bonus be paid in each attested herd for every heifer got in calf each year? Would that type of action not shift the emphasis from tubercle-free milk to tubercle-free cattle, as it should be changed? Would it not hasten the day when we could pass from clean herds to clean districts or areas?

Perhaps Mr. Salter Chalker would forgive him if at this point he picked up something he said. He was astonished to hear him talk of Carmarthen as the bright spot in this country. Surely he remembered that there was a district in Ayrshire and through Lanarkshire which set the standard. And if he went a little further, there was an island, of which he (the speaker) was a native, which he was sure had the highest percentage of attested stock of any district in this country.

Mr. Steele-Bodger had dwelt on the question of periodic clinical examinations and had quoted figures which suggested the reduction in the incidence of tuberculous milk which they effect. He was not going to enter into any arguments as to the value of clinical examination as a means of protecting the milk drinking public, but he was going to regret that his plea for periodic clinical examination was not one for periodic farm livestock survey. He thought it basic to the development of our new policy that these surveys should be made with a frequency and thoroughness so far entirely lacking. Then we would be free from guesses as to the incidence of and loss from disease. We saw quoted and requoted figures which were said to be estimates, but he suggested, with all respect, that very frequently they were nothing more than "guesstimates"! Careful livestock surveys by veterinary surgeons, followed up, where necessary, by further investigation, were the only good bases on which our new policy could be built and developed. When were they likely to commence?

In conclusion, he would say that he believed a new policy for the control of diseases of animals was formulated in 1937, but he suspected that the war prevented it being put into full operation. He saw some danger that the Animal Health Division might not get the chance to live up to its name and the expectations we had for it. His plea was that it be given freedom for full scope of operation on boldly drawn lines, based on the wealth of experience which the veterinary profession of to-day had and which it was ready to put at the disposal of the nation.

Mr. Dalton (Beds): In these days we should start to think about the eradication of disease, not its control. Tuberculosis was the one with which we must deal first, because it was his experience that if you cleaned that up first the others simply faded out. He agreed that the veterinary profession could do a great deal with scientific research, but I thought that the farmer himself could get on with the job if he was given some encouragement in the form of a fair reward for what he produced. There was now a chance of taking over all the farms that the War Agricultural Committees had in hand and utilizing them as areas in which to place reacting cows. If they were good animals, we could save their calves, taking them away immediately they were born and putting them on clean farms.

One speaker said that water was the greatest cause of disease. He had found that water from some of the stagnant ponds was a carrier of disease, especially Johne's disease, but he thought that buildings were a more important cause. If the unsuitable buildings were swept away and the cattle allowed to lie out, they would be proceeding on the right lines.

Mr. Parry (Northants) said he was a meat and food inspector. Mr. Steele-Bodger had had quite a bit to say about the way in which they did their job, but, after 16 years' experience at it, he would like to say that he considered it was the job of the veterinary surgeon to deliver to them in their abattoirs clean cattle. He did not think they should find so many diseased carcases as they did find. He was sure that Mr. Steele-Bodger would agree that the veterinary surgeons had enough to do with their own job without stealing theirs!

Lord Teviot (Hants) wished to congratulate the Club, and particularly the lecturer, on bringing forward that afternoon probably the most important subject that had been debated there for some time. He believed that all diseases, whether they be diseases of plants, animals or men, were derived from the soil, and that if we kept our soil healthy and strong in live organisms, not interfering with nature, we would have healthy plants, animals and men.

Mr. Morrison (Young Farmers' Club) thought that before improvement of the health of the livestock of this country could be achieved there must be a great increase in the number of veterinary surgeons. He himself was waiting to go to a veterinary college. He applied a year ago and would not be going until 1947. There were only four or five colleges in the whole of the British Isles—none in Wales. There must be some expansion of the facilities for training veterinary surgeons in this country and he would like to ask Mr. Steele-Bodger whether there was any chance of improving those facilities.

Mr. Nicholson (Bicester) regretted the tendency—to which Mr. Steele-Bodger subscribed—to ask for the re-imposition of the warble fly Order and he regretted it for one reason only. It was one of those Orders which was never carried out, and nothing was worse than to have laws on the Statute Book which were disregarded. With a shortage of facilities, it was very difficult to rid one's cattle of warble.

Mr. Thompson (Kent): Apparently Mr. Steele-Bodger was led up the garden path before they were. They came there hoping that he was going to give them his views on what the national policy should be, but unfortunately he did not do that. He, his proposer and his seconder had not really yet taken in the title of the paper, which was "A National Policy for the Control of Diseases of Animals." They seemed to have got tuberculosis so firmly into their heads, as it applied to human beings, that they had almost forgotten that there were other diseases of cattle. It was with diseases of cattle that they should be primarily concerned that afternoon.

If they went into the figures they would find that, as it affects animal health and as it affects the farmer's pocket, contagious abortion was a much more serious disease to-day than tuberculosis. Trichomoniasis was becoming just as serious. Tuberculosis was not the primary disease of bovine animals to-day.

Mr. Wolstenholme (Hants): Could Mr. Steele-Bodger tell them whether there had been any success with research work directed to the discovery of a vaccine

which could prevent tuberculosis. He believed he was right in saying that of milk taken from tuberculosis affected cattle, only 6 per cent. carried tuberculosis bacilli. If so, why were we destroying animals a high percentage of which were apparently giving pure milk? He would suggest that it was the milk which should be tested and not the beast.

Mr. ALEC STEEL (Essex) was surprised to see from Mr. Steele-Bodger's paper that the American Forces in this country would not take our milk. Why was that? In America, for 20 years the Government had taken steps to eradicate tuberculosis from their herds, and he believed that at the present time only 2 per cent. of the animals in America were reactors. If our Government had done the same when the Americans started to do that, when the American Forces came to this country surely they would have been in a position to use our milk.

He thought the veterinary surgeons in private practice in this country had not got sufficient time at their disposal for testing attested herds, and that the Government—who were trying to do all they could now to eradicate tuberculosis—should do it entirely by means of their own veterinary surgeons.

Mr. LYLE STEWART (Newcastle) asked if Mr. Steele-Bodger really thought that a bonus to encourage farmers to become attested was necessary. Why was it that so many farmers in Ayrshire had become attested? Some of them had told him that the Government did not pay them anything until they became attested. Rather than give them a bonus to have them become attested, if the present bonuses were not sufficient, why not introduce some scheme to assist landowners and farmers together to provide proper buildings to facilitate the scheme?

Mr. R. DUTHIE (Essex) enquired why it was that in the last war horses were always much healthier when watered in the stagnant pools of Flanders than in the clear, chalky streams of the Somme.

Dr. ALLCROFT (Surrey) expressed himself as being 100 per cent. in favour of Mr. Steele-Bodger's policy for the national control of animal diseases, but he would ask him to include in those diseases the diseases which escaped notice at a meeting of that nature, namely, diseases of metabolism, like milk fever, lactation tetany, and acetonaemia.

Mr. J. BRENNAN (London): If the Government were to accept at once all that had been put forward in that paper, he would like to know how Mr. Steele-Bodger would suggest that it should be carried out.

The Reply

Mr. STEELE-BODGER, in the course of his reply, said that he did not agree that we should add more functions to the many already performed by the Animal Health Division, and he referred to cowshed construction, etc. His friend from Northamptonshire said the same thing—why not leave the sanitary inspectors to their job and let the veterinary profession get on with theirs? He was sorry, but he did not think that a lot of people to-day realized what was the function of a veterinary surgeon. The course to-day was probably the most comprehensive of all the courses for those who wished to take up a scientific profession. Such things as cowshed construction, sanitation and ventilation were not taken merely as subjects to which a few hours' tuition were allotted; they were basic subjects. Sanitary hygiene was basically necessary in the study of preventive medicine. He was not suggesting—and he hoped he did not suggest it in his paper—that the members of his profession alone should carry out these various functions, but he did suggest that by their training they were better qualified to supervise them than any other person trained in any other single branch of science.

As to herd inspections, Mr. Salter Chalker referred to the shortage of veterinary surgeons and said it was better for all herds to be inspected once a year than for a few herds to be inspected four times a year. He (the speaker) challenged the statement that we had insufficient veterinary surgeons to carry out more than once a year inspections of most herds. The replies to the referendum to the veterinary profession by the National Veterinary Medical Association showed that in most instances practitioners could undertake 100 per cent. increases in their Ministry work. He was well aware that there were some districts in which that could not be done, but he would sooner make special arrangements for those areas rather than see the whole country suffer as a result of their difficulties. He might even suggest—and this, of course, was a matter of policy, upon which he had to tread warily—that discretion might be left to the Divisional Officers of the Animal Health Division to decide how many or how few clinical inspections could be made in the course of a year. While he was on that point, there was a suggestion—from Dr. Montgomerie, he thought—that those inspections should be rather in the nature of livestock surveys than clinical inspections. That was, in a small way, what was done now. He mentioned that these quarterly examinations did afford an opportunity to the farmer—an opportunity which was appreciated—of touching upon matters other than clinical herd inspections. The more often the practitioner went to the farm in a semi-official capacity, the greater would be the benefit to agriculturalists.

Mr. Salter Chalker mentioned the Ministry's 50-50 water scheme. He failed to mention, however, that it was for approved schemes, and the difficulty he had experienced was to get some of the schemes approved, and, having got them approved, to get them applied. However, it was a good measure, and if it could have been carried out it would have helped a great deal.

Mr. Chalker had suggested—in fact, he stated—that tuberculosis eradication had gone much further than the paper suggested and that the Union had agreed with the Ministry on area schemes. He was very glad to hear that, and he had no doubt that the veterinary profession would in due course be informed of what had been decided, even although they were not consulted beforehand.

He suggested there was a need for national control by a National Committee composed of all sections of the industry interested. He was with him in that. If the object which we all desired could be achieved by such a Committee, well and good. He was, however, reminded of a saying by his late Principal, Dr. Bradley, *i.e.*, that the ideal committee was a committee of two—yourself and another, preferably with the other one absent!

Mr. Brennan asked him a very pertinent question, namely, how would he suggest drawing up a national scheme, bearing in mind all the suggestions that had been made? That afforded him the opportunity of saying that he would like to gather around him a number of his colleagues—of whom Mr. Brennan would certainly be one—to advise him and to sift the suggestions—to scrap those which were thought not to be practicable and to attempt to put into operation those which were thought to be practicable. He could wish for no happier fate than to seek the advice of his colleagues, of gentlemen from the National Farmers' Union, from the Auctioneers' Institute, and so on. He believed that at the present time all sections of the agricultural community and those interested in it were determined that something should be done now to control animal disease. If we were agreed upon that, surely we should not be incapable of devising some practical method to do it. It had been suggested that this was not the time to consider control but eradication. It might be argued that it would be better to control disease to the point of eradication rather than to eradicate it. Coming from him, that might not be so stupid as perhaps it sounded, but in part it probably answered Mr. Clarke's question—which he knew he should get—as to whether or not animals benefit by injections of vaccine. He thought that quite often animals would benefit by an injection of vaccine, and that the practice of controlling disease by preventive medicine was preferable, or could be preferable, to an eradication scheme. If we could raise the animal's natural resistance to infection, he submitted it might be better than removing the possibility or the probability of infection.

He feared he could not answer Dr. Montgomerie's question as to whether or no he believed we had a national policy, or whether, if we had one, it did not function. He must read his paper again and see which he did mean!

Dr. Montgomerie mentioned the excuse of war. He remembered that when they introduced a scheme for the control of certain diseases of dairy cattle a very wise and learned man, Sir Joseph Barcroft, said, "War is the time to take risks. If you are satisfied that the risks are worth taking, you should take them with both hands and go ahead." He maintained that during the war we lost a golden opportunity for tackling this problem of disease. The shortage of veterinary surgeons had been mentioned several times, and there was a shortage during the war of veterinary practitioners, but very few of the Ministry's whole-time staff were taken, or were, in fact, permitted to go. A valuable opportunity was lost by the powers that be in not getting to grips then with this disease problem. The Ministry could have got away with anything bar murder during the war in the interests of milk production. With all respect due to them, Government departments lived in fear of making mistakes. "If you have a policy that is a bad one, you can make the best of it, but if you have no policy at all, then God help you, for what can you do?"

Dr. Montgomerie suggested redesigning the attested herd scheme, and he made some very good suggestions, of which he trusted due note would be taken.

Mr. Dalton, from Bedfordshire, said that if you cleaned up tuberculosis, the other diseases would fade out. Many veterinary surgeons would agree with that, and to a certain extent it was quite true. There was no doubt that the eradication of tuberculosis from a herd did give one a flying start in the eradication of other diseases, but it was not all just as easy as that. He also suggested that the W.A.C. farms—this was interesting—should be used to accommodate the diseased animals in the district. He thought he was going to suggest that the W.A.C. farms should be used to segregate the clean animals in the district. He wondered if there were many counties in which the W.A.C. owned sufficient land to accommodate the diseased cattle within their areas.

Mr. Parry suggested that if one wanted to build up disease-free herds you should not give a farmer a cheque for tuberculous cows but give him cows. You would be just throwing good money after bad—or good cows after bad—if you replaced two tuberculous cows in a herd by two cows which had passed the test. He would ask him if he had any idea of the percentage of cows which were free from tuberculosis at the end of 12 months, having entered such a herd free from it. It was not as easy as all that. He must confess that it did not worry him much if he tested a herd and found the cows going down but it broke his heart if he found bunches of young stock going down. That was one of the reasons why he pleaded for more frequent clinical inspections.

There were certainly some very good friends of agriculture in the House of Lords. He had had a letter from Lord Bledisloe explaining why he was unable to be present, and expressing full agreement with his paper; in fact, on the strength of it he proposed to initiate another debate in the House of Lords. He reminded him (1) that the R.A.S.E. had definitely decided that at all future Royal Shows none but attested cattle would be admitted to the show-yard, and that this would apply also in due course to animals affected with contagious abortion; and (2) that an inter-county dairy herds competition was being initiated this year by the R.A.S.E., for which he was presenting a trophy: the latter would be awarded each year to the county in England and Wales which during the previous 12 months had made most progress in eliminating tuberculosis from its herds.

Lord Teviot suggested that we should pay attention to the soil, and he agreed. He stressed in his paper that the control of disease was a team job. We knew far too little about the problems associated with the soil, and that was more than ever emphasized, he thought, by the increased incidence of, might he term it, physiological infertility which had arisen during the war. There was too much research going on in watertight compartments, too little co-operation between allied sciences. It was all very well to talk about taking the plough round the farm and putting down new leys, but it was not only just putting down new leys. We did not know the extent to which these altered methods of farming had repercussions upon other aspects of animal husbandry.

Mr. Morrison, of the Young Farmers' Club, wanted a great expansion of the numbers of veterinary surgeons and of the veterinary teaching institutes. So did he, and he thought we should get them. It was a very difficult problem upon which to advise anybody. He did not think he was giving away secrets when he said that every quarter they in the Royal College of Veterinary Surgeons had to register some 500 students who had qualified for registration to enter a veterinary college. That was an under-estimate rather than an over-estimate. That was 2,000 a year, and there were 4,000 members of his profession at the present time. How could they hope to train that number to become veterinary surgeons, and what would be their prospects of livelihood if they did train them, and they all became veterinary surgeons? It was not as easy as they would like it to be. In addition to that, they had all these boys coming back from the Forces who had intended to become veterinary surgeons, and they had all the students coming back who were taken from the colleges. "We are with you in that we require more veterinary surgeons, and I think we are probably with you that we require more teaching institutes if there is to be a settled policy for agriculture in the future, but it is a grave responsibility for the R.C.V.S. to produce veterinary surgeons without a very good assurance that they will be able to obtain a reasonable livelihood afterwards. It is all right just now—we are as busy as we can be—but I remember the time, just before the war, when veterinary surgeons were ten a penny. They were willing, some of them, to give their services in return for their keep because agriculture was depressed. A prosperous agriculture will mean a prosperous and energetic veterinary profession, but a depressed agriculture will mean a stick-in-the-mud veterinary profession. It is up to us to ensure that agriculture remains prosperous, and if we do, then there is hope for you, sir, and many like you."

Mr. Nicholson said there were laws on the Statute Book which were incapable of being implemented. He agreed. He (the speaker) presumed to suggest that a Trichomoniasis Order would have been of greater benefit than the Contagious Abortion Order of 1922, which was honoured rather in the breach than in the observance. It was practically impossible to convict a man under the Contagious Abortion Order unless one did it by King's Evidence from an employee. He thought the time was overdue for very serious consideration to be given to whether a Trichomoniasis Order should not be introduced and implemented. Those remarks also applied to the Warble Fly Order.

Mr. Thompson suggested that the profession had stressed tuberculosis to the exclusion of other diseases. The profession had said that contagious abortion was responsible, or rather had been responsible, for more than half the infertility in the country, but something had been done about that disease. He believed they were within sight of controlling it if things went according to plan, but he was not satisfied that we were in sight of controlling equally well tuberculosis or trichomoniasis, which he considered to be vitally important.

Mr. Wolstenholme asked if there was any successful vaccine to prevent tuberculosis. Experiments were being carried with a vaccine for that purpose. From 1927 to 1937, thanks to the Midland Counties Dairies, he was able to carry out a field trial on 33 herds with regard to vaccination, and he was satisfied in his own small way that it did a lot of good. He believed it was one of the factors which would have to be taken into consideration in the control or eradication of tuberculosis in areas where it was prevalent. Mr. Thompson suggested that the milk should be tested, and not the beast, but he suggested that both should be tested.

Mr. Steel, of Essex, asked why we could not do what the Americans do. Conditions were not quite the same, but we could do a lot more than we were doing, as he had attempted to explain in his paper. He thought they had not got sufficient time to do tuberculosis testing, and he would refer him to Mr. Brennan to deal with that. He thought it was a wrong policy to sell reactors out of the herd, but that they should be kept in the herd and a good bull used on them. You could not have an attested herd if you continued to keep reacting animals within it. However, he thought provision would have to be made—perhaps it had already been made by Mr. Salter Chalker and the Government!—for dealing with those reacting animals which were valuable.

Mr. Lyle Stewart asked whether the bonus was sufficient to encourage farmers. He believed it was. He believed you could legislate against wrong-doing, but you could not legislate for right-doing. You had got to encourage farmers to do what was right. You could penalize them for doing what was wrong, but he did not think any measures on the Statute Book to compel farmers to produce clean milk would be capable of being implemented. In the Midlands he had seen almost miraculous improvements made by the system of paying a bonus for clean milk production, and he was satisfied that that was the way in which to get clean milk. By all means penalize the backslider, but do not try and legislate for the good farmer—encourage him.

Mr. Duthie asked why horses drank dirty water. He did not know. Why did so many of them prefer bad habits to good habits?

He was sorry he could not include all those diseases mentioned by Dr. Allcroft. He agreed with him as to their importance. However, he believed that it was not a job for that Club, but for the Agricultural Research Council and the Agricultural Improvement Council. He thought they should institute intensive research on these problems in the districts in which they occurred most. He did not think it was any good trying to reproduce these diseases in a laboratory: you had got to take your laboratory to the farm. That, he maintained, was a job for the Agricultural Research Council and the Agricultural Improvement Council.

REPORT

[Department of Agriculture, Canada. Report of the Veterinary Director General (M. Barker, V.S.) for the Year ended March 31st, 1945.]

The health of Canadian livestock continued at a high level, no serious outbreaks of contagious disease having occurred during the year under review.

Staff shortage reduced the work undertaken in connection with the control and eradication of bovine tuberculosis, but initial tests were commenced in a limited number of new areas in the provinces of Ontario, Saskatchewan and Alberta.

Contagious Diseases.—Sheep scab, dourine and glanders were apparently no longer existent and only one case of anthrax was recorded in Eastern Ontario. Two cases of mange in cattle recovered promptly under treatment. Hog cholera was somewhat more prevalent but under the "slaughter policy" no difficulty was experienced in eradication. Only two cases of equine mange were discovered. Rabies control measures, involving a small area in South-Western Ontario, were still in force. Out of 2,713 herds under supervision for Bang's disease (brucellosis) 1,808 were listed as free from the disease.

The report contains a wealth of statistical detail in relation to: cattle tested for tuberculosis under the different control policies, disease returns, import and export inspections, etc. The "Meat and Canned Foods" section is dealt with by the Associate C.V.I. (F. Parmiter, E.D., V.S.) and is also in the main a collection of relevant statistical information. The percentage of cattle carcase condemnations was only 0·98 with 0·43, 0·27 and 2·52 for sheep, swine and poultry respectively.

S. A. E.

FARMING POLICY AFTER FOOD CRISIS

Mr. Tom Williams, Minister of Agriculture and Fisheries, speaking at the recently held annual luncheon of the Central Association of Agricultural Valuers, said that when the world food crisis had passed it would be possible for the country to return to a more natural agricultural policy which would be based on livestock, and they would attempt by persuasion, advice and guidance to achieve results which the nation needed. In the interests of the industry there should be power to deal with any stupid, unwilling or undesirable tenant. It was the duty of the State to see that conditions were right, but it was putting an undue obligation on a Government to expect them to cure in 12 months all the ills that had grown in 50 years.

* * * * *

Weekly Wisdom

The Lords have forgotten more about farming than the Commons ever knew—"Blythe" in the *F. and S.-B.*

CLINICAL COMMUNICATIONS *

Leptospirosis with Special Reference to its Occurrence in the Dog

Mr. E. J. Heather: Recent publicity in our professional press has given me the opportunity of introducing a subject for discussion which is of especial interest and importance to the human and canine population of Oxford.

This city is built on the sides of and even over numerous waterways. These waterways carry an ever-present infestation of rats, and these rats contain as their habitual parasites the causal organisms of leptospirosis.

It may be accepted that the presence of icterus as a symptom of leptospirosis occurs in but a proportion of cases; indeed, it is probable that certain types of leptospira produce a clearly defined clinical picture in which jaundice never features. Possibly this discussion will serve to stimulate enquiry into leptospiroses of non-icterus order with the object of establishing them as specific clinical entities.

As I have mentioned, leptospiroses are of particular moment to Oxford and presumably it is for this, among other reasons, that we find the National Centre for their diagnosis in the City.

Dr. John Wylie, of the Sir William Dunn School of Pathology, has consented to be with us this afternoon and to assist in our deliberations. As Dr. Wylie has been very largely concerned for some time past in the study of these diseases and is acknowledged to be an expert in them, I will make no attempt to occupy more of your time than will serve me to ask him to take over this discussion.

Dr. J. A. H. Wylie: The occurrence of leptospiral infection in the canine species was recognized not long after the causative organism of human Weil's disease had been discovered by Inada and his colleagues (1916). Uhlenhuth & Fromme (1917) found leptospirae in the viscera of dogs dying of an icteric disease on the Western Front where Weil's disease was prevalent among military personnel. These workers were unable to distinguish the organism they isolated from *L. icterohaemorrhagiae*.

That another species of leptospira might be pathogenic for the dog was first realized by Lukes (1922) who described an organism which he called *Sp. melanogenes canis*. Later workers have suggested that Lukes was in fact dealing with the leptospira now known as *L. canicola* (Klarenbeek & Schüffner, 1933).

Canine leptospirosis was first described in England by Okell and his colleagues (1925) who identified *L. icterohaemorrhagiae* in fatal jaundice in dogs, but on the whole very little investigation on leptospiral infection in this animal has been undertaken in Great Britain. Gardner (1943) described what is probably a distinct species of leptospira occurring in the dog which was pathogenic for man. Stuart (1946) recently reviewed the incidence of the presence of agglutinins to *L. canicola* among dogs in Glasgow and found that a relatively high (40 per cent.) proportion of domestic animals possessed serum agglutinating the organism. This worker, however, appears to have accepted rather low titres as being significant. It has been found in this laboratory that the serum of a proportion of even insusceptible species and which have never been exposed to leptospirae, *e.g.* rabbits bred in the laboratory, contain non-specific agglutinins detectable in high dilution against living and formolized suspensions of organisms of this genus

There appears to be no record of the occurrence of *L. canicola* infection in man in this country.

There is reason to believe that the fundamental pathology of all the leptospiral infections is essentially similar and that the vascular and renal components of the syndrome are uniformly constant, in contrast to the hepatic and icteric features which are detectable only in the most severe manifestations of this type of infection (Wylie, 1946).

Of the human infections of this type there can be little doubt that *Leptospirosis icterohaemorrhagica* is the most severe (a parallel was mentioned between typhoid fever and other infections with organisms of the Salmonella group) but even in this condition jaundice is observed in less than 60 per cent. of cases and in the other human eptospiroses icterus is present only very rarely. Similarly in the dog the canicola infection appears to be less severe than that following invasion by *L. icterohaemorrhagiae*. In Holland, where the leptospiroses have been most extensively studied (Schüffner, 1934; Walch-Sorgdrager, 1939), both conditions are diagnosed more frequently than in England and are often spotted in their sub-clinical stages.

An interesting epidemiological finding with regard to leptospirosis in dogs is that the male is appreciably more frequently infected than

* Made to the meeting of the Royal Counties Division, N.V.M.A., held at Oxford, April 26th, 1946.

the bitch. A similar disparity in the sex incidence is also observed in humans (Gardner & Wylie, 1946), but this has always been explained on the grounds that the occupations in which Weil's disease is a recognized hazard, are carried on predominantly by men; no such explanation will account for this difference in sex incidence in dogs.

In conclusion, it is felt that it would be worth while more fully to investigate the prevalence of canine leptospirosis by making use of the various diagnostic tests of which the serum agglutination test is probably the simplest and on the whole the most reliable. Animal inoculation with *materies morbi* often gives false negative results on account of the poor viability of the leptospirae, especially after delays in the post, etc. It is stressed that the diagnosis should be considered before jaundice develops as a result of which it may well be found that, as with the human disease, the mild anicteric syndrome may constitute a considerable proportion of the total incidence of leptospirosis among dogs. Special attention should be directed to manifestations of renal disease in all forms of leptospirosis.

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Dr. R. LOVELL: Was there any record of the isolation of *Leptospira canicola* from man or animals in this country? We had had hopes of investigating the possibility of its presence in dogs just before the war, but were unable to proceed with the work. It was, of course, well known that the natural reservoir of *L. canicola* was the dog, and so far about 22 cases of infection of human beings with this organism had been recorded, and in many of the cases there was strong evidence that the disease had been acquired from infected dogs. On the other hand, the natural reservoir of *L. icterohaemorrhagiae* was the rat, and the disease caused by this organism in man and dogs was spread by rats. There were, however, records of about half a dozen cases only of the human disease due to this organism which had been transmitted directly by dogs.

Dr. WYLIE: No cases of human canicola infection had been recorded in Great Britain.

Mr. F. R. SPRATLING: Were there any lesions in the kidney of recovered cases in man or animals? Was serum of value in the treatment of the disease, as seen clinically?

Dr. WYLIE: The residual pathology of recovered human Weil's disease was not known. He added that serum and antibiotics must be given early in an attack to be of value.

Mr. H. BELL: Did the fact that a place was rat infested necessarily mean that leptospiral infection was rife; in other words, were all rats carriers of the leptospira? Did the organism affect the health of the rat?

Dr. WYLIE: All rats were not infected, the infection being commoner in the brown than in the black rat. The brown rat was more urban in distribution than the black rat. As far as was known, the rat carried the organism without injury to itself.

Dr. N. S. BARRON: What was the mode of infection? Could the organism penetrate unbroken skin? Did saliva contain the causal organism?

Dr. WYLIE: There was no need to be bitten; the organism however, was probably unable to get through completely intact skin, but could penetrate conjunctival, nasal and buccal mucosae.

Mr. S. J. EDWARDS: Were organisms of the leptospira species widely distributed in river water in this country?

Dr. WYLIE: The Cherwell and Thames were contaminated; he did not know about other rivers. The distribution was very variable, but probably heavier in urban areas.

Mr. D. N. SPRIGGS: How long would the organism exist outside the carrier rat, *e.g.*, on a kennel floor? Was vaccination against leptospirosis effective as a preventive?

Dr. WYLIE: The survival of the causal organisms depended on several conditions. They died very quickly in acid, and therefore dogs' urine was likely to be lethal to leptospirae.

Dutch workers claimed good results for vaccination. It was important to use the right strain.

Miss M. L. BINGHAM: Were the black and brown rats the chief sources of infection? In most country streams one saw the water vole and not the true rat.

Dr. WYLIE: The rat was by far the most important carrier, although certain small rodents did carry leptospirae of various species.

Mr. J. W. H. HOLMES asked Mr. Heather if he would describe clinical features on which he based his diagnosis of leptospirosis.

Mr. HEATHER: He had only diagnosed leptospirosis when jaundice could be observed. Usually there was very rapid onset of jaundice after malaise, lasting about one day, but jaundice might develop 12 to 24 hours before there were symptoms of discomfort and emesis. As a rough yardstick of prognosis, if emesis could be controlled the dog would recover.

The "Cat-Influenza" and "Cat-Distemper" Group

Dr. PHYLLIS KON's contribution is summarized as follows: She said that as they were now rather pressed for time, she would not give all the items which she originally intended, but would confine herself in the main to a plea to our pathologists and bacteriologists, some of whom she saw present, for more research in those diseases of cats grouped together under the names of "cat-influenza" and "cat-distemper." She listed what she considered to be the main divisions of this group of diseases, according to their symptoms, and asked if it was possible to produce specific vaccines or specific sera, as had apparently been done in America. These diseases caused considerable losses among the cat population of the country and were a constant source of worry to the small-animal practitioner.

Finally, Dr. Kon mentioned a case which she thought might be more of academic than practical interest. This was an example of the appearance of a lethal factor among the kittens of a certain female Siamese cat. She described how in each of four litters of this cat there was one kitten which grew normally while suckling, but some few days after weaning and when put on a solid diet (*i.e.*, at six to nine weeks old), showed symptoms of distressed breathing, inability to eat and acute discomfort. The first of these kittens died, but the other three were destroyed when symptoms developed. All four were examined *post mortem*. The first showed a grossly enlarged heart occupying a very large part of the thorax. The myocardium was apparently mal-developed and all chambers of the heart were very thin walled.

The other kittens revealed a condition differing from that in the first kitten, but identical in all three. The cause of the symptoms was the fact that the unstriped muscle of the wall of the oesophagus was entirely undeveloped, the wall being no thicker than tissue paper. In each case the oesophagus was blocked from pharynx to stomach with semi-solid food matter and the whole organ was grossly distended, thereby causing pressure on the bronchi and lungs. It appeared that while the kittens were taking only liquid food the lack of development of the oesophageal muscle was unimportant, but as soon as more solid food was eaten, the oesophagus was unable to pass it on. The cardiac and pyloric sphincters of the stomach were patent in all cases.

Dr. R. LOVELL asked Dr. Kon if any bacteriological examination had been made of cases of "snuffles" in cats? A similar disease in rabbits was due to infection with pasteurella. Cases of wound infection in human beings due to pasteurella had been recorded recently, and these had followed bites by cats and dogs. Common complications were a subacute osteomyelitis and cellulitis with adenitis, and it was suggested that this organism might have special affinity for bone. There might thus be some association between this disease of cats and pasteurella.

Dr. M. L. LEVI reported that bacteriological examination of two cases of "snuffles" in cats showed the presence of large numbers of organisms resembling *Pasteurella septica*. Our knowledge of the normal flora of the nose, mouth and throat of the cat was still most incomplete. It was well known that cat bites in human beings often became septic, and as Dr. Lovell said, the micro-organism which was present in the abscesses formed, corresponded closely to a Pasteurella. A more detailed study of the normal inhabitants of the naso-pharynx of the cat would obviously help in interpreting bacteriological findings in cases of "snuffles."

Attempts to control feline infectious enteritis by active or passive immunization had been made, using formolized organs and sera prepared from cats. These products were therefore difficult and expensive to prepare on a commercial scale.

In the virus diseases of cats the serum of older animals in the same breeding establishment was probably of some value.

Toxicology

Mr. J. W. H. HOLMES: I would, in the first place, like to stimulate a discussion on Toxicology. Individually most of us have a very limited practical knowledge of this subject but collectively we must have a wealth of material. There is considerable scope for experimental investigation especially in connection with plant poisoning of large animals. The following case records of poisoning will, I hope, be adequate to commence the discussion on this subject.

1. Suspected Ragwort Poisoning

A three-year-old Friesian cow four months in-calf was examined in the month of March, on the owner's premises, with Mr. K. E. Everett, M.R.C.V.S. The history given was simply that loss of condition and diarrhoea had been noticed over a period of several weeks. Johne's disease had been considered but not confirmed.

The examination failed to reveal any definite cause of the condition and in consequence the cow was sent to the College Hospital for observation. A few days after arrival she became maniacal and this feature became so pronounced that it was dangerous to go into the box. Tuberculin test, johnin test, faecal examination for Johne's and urine examination all proved negative and after two weeks she was sent for casualty slaughter. The only findings on *post-mortem* examination were an enormously distended gall-bladder containing approximately five pints of bile; and a fine cirrhosis of the liver. The latter was taken by Mr. Cotchin for histological examination and he suggested that the findings fitted ragwort poisoning.

Enquiries of the owner showed that the plant was available on the farm, but no further animal became ill.

2. Strychnine Poisoning

Prior to 1937 when the present Poison Rules came into force, most of us encountered a great deal of strychnine poisoning, especially in dogs. To-day cases are few, but the following two case records show that we still have to be on the alert.

(*a*) A single joint of beef was bought for dog food at a knackeryard on a Friday. It was boiled and some of it was fed to four dogs and two adult cats on the Saturday with no ill effects. The remainder of the joint was kept on a plate in the pantry until Sunday lunch time, when a further feed was given to all the animals. An hour later a ten-week-old male poodle puppy was found dead in its basket and a six-year-old female Yorkshire Terrier became ill. An aged Lakeland Terrier dog, an adult poodle bitch (dam of the puppy) and the two cats remained unaffected.

The Yorkshire Terrier was seen two to three hours after the feed when extensor spasms were marked especially when the patient was handled. There was, however, an unusual feature in that there was no response to sound. The owner gave assurance that the animal was not deaf. A tentative diagnosis of strychnine poisoning was made but the animal died before nembutal solution could be prepared and given.

The bodies of the two dogs were taken to Mr. Cotchin who made a *post-mortem* examination, reporting absence of lesions apart from unclotted heart blood. The viscera of both animals and the remainder of the joint of meat were taken to Mr. Kefford for chemical analysis. He reported as follows:—

"The analysis has demonstrated the presence of strychnine in the stomachs of the two dogs. The quantities separated were 1/12 grain from the whole of the stomach contents of the ten-week-old puppy, and 1/3 grain from the stomach contents of the older dog. In both cases the stomach contents consisted entirely of meat.

The sample of meat was also examined and 1/20 grain of strychnine was found in the area from which the meat had been cut for the dogs. The remainder of the meat contained only a trace of strychnine, which was insufficient for a quantitative estimation.

In view of the history, this result shows that the death of the dogs was due to strychnine poisoning, and the presence of meat in the stomachs of the dogs and of the strychnine in the sample of meat points to the meat as the source of the poison."

The total amount of strychnine recovered by the analyst was slightly under ½ gr. (7/15 gr.). Did the strychnine in the meat occur from administration to the cow at the point of death; if so, why did it not dissolve out during the boiling process? The other possibility is that it was added maliciously to the joint while stored in the pantry over Saturday night. All investigation along this line failed and it must be remembered that strychnine is difficult to obtain by the general public.

(*b*) An eight-year-old Wire-Haired Dachshund dog was away hunting on a neighbouring farm from 11 a.m. to 1 p.m. Shortly after returning he developed extensor spasms which were especially marked as a result of sound or touching. The dog died before our arrival an hour after symptoms were noted. The body was taken to Mr. Cotchin who reported as follows:—

"I have this morning made a *post-mortem* examination of an eight-year-old male rough-haired Dachshund. The blood was clotted in the great vessels. In the stomach were remains of a rabbit (faecal pellets seen). The only obvious lesions were haemorrhages into the spleen and into the pancreas. Haemorrhages into the pancreas have been noted in cases of strychnine poisoning in the dog, and in view of the history, material is being submitted for chemical analysis for strychnine."

The viscera were sent on to Mr. Kefford for chemical analysis and he reported as follows:—

"The analysis has shown that the stomach contained approximately 1/180 grain of strychnine.

In view of the history of the case, this result suggests that death was due to strychnine poisoning."

Toxic Effects Following Application of Sodium Fluoride

A nine-year-old male Peke was dressed by its owner with an insect powder containing 40 per cent. sodium fluoride. Vomiting and thirst developed but cleared up after three days. The only treatment given was liquid paraffin and kaolin.

Head Shaking in Horses

The second subject on which I would like to stimulate a discussion is a peculiar condition of head shaking in horses. Most of us in practice have, I am sure, encountered these worrying cases, especially in riding horses. The history generally given is that the animal is perfectly quiet and normal except at work when he develops a vigorous shaking of the head making control difficult and riding uncomfortable and unsafe.

We have failed to find any cause for this condition and I would welcome the views of members on the subject.

Mr. H. Bell heartily agreed with Mr. Holmes on the desirability of some competent body carrying out research into the toxicity of certain plants, because he thought that a great many ailments which they were called to treat in country practice, particularly when cattle were at grass, were due to plant poisoning. How often we were called to see a cow, which though apparently in normal health, had fallen almost 100 per cent. in her milk yield in the course of a day. He believed that many of these cases were due to the animal having eaten some poisonous plant in the hedgerows.

It had no connection with vegetable poisoning, but he had just encountered a case where four heifers had been poisoned with lead arsenate in mowings from a cricket pitch, which had been dressed with 1¾ to 1½ oz. per square yard to kill earthworms. He, in his ignorance, had advised sending three of the heifers to the Ministry of Food for slaughter, as one had died at the outset. He had thought that the symptoms shown were for the most part due to lead. It was decided to submit some of the meat to an analyst to ascertain if it was fit for food. It transpired that there was enough arsenic in 1 lb. of meat to poison the whole parish!

Mrs. P. M. Brown asked if any member had encountered cases of D.D.T. poisoning. She quoted the case of a cat which had been taken to her surgery one morning, with the history that it had been dusted with D.D.T. powder the night before. The cat was in a state of collapse, the whole body was shaking and there was no response to stimuli. The symptoms were presumably due to the D.D.T. The cat was destroyed at the owner's request.

Mr. Holmes replied that he had so far used D.D.T. as a dusting powder on a limited number of cats without toxic results. He had used the suspension on numerous dogs, including young puppies, without ill effects.

Professor Bosworth said that there were numerous reports in current literature of poisoning by D.D.T. emulsions.

Mr. S. J. Edwards confirmed the view expressed by the President that when used in an emulsion D.D.T. could be absorbed through the skin, although it was generally agreed that dry powders present no danger of absorption (*British Medical Bulletin*. 1945. Nos. 9 and 10).

Mr. W. Martin and Dr. M. Levi both expressed opinions that strychnine poisoning was still fairly common, Mr. Martin quoting a case of the malicious poisoning of a dog. Dr. Levi said that farmers could apparently obtain strychnine quite easily for poisoning foxes.

Mr. F. R. Spratling agreed with Mr. Bell regarding the likelihood of plant poisoning of cattle by "subclinical doses." He considered that the text-books on toxicology tended to describe the symptoms when enormous doses of poisons had been administered. He thought it only common sense to assume that the eating of small quantities of poisonous plants would be followed by general malaise, inappetence and dullness. He had recently encountered two cases in a herd of what he believed to be poisoning by water-dropwort (*Oenanthe crocata*). The cases occurred in the dry weather we had recently experienced in early April, among cattle grazing a rather bare pasture, through which a stream ran. Growing from the stream-bed were succulent shoots of dropwort and it could be seen that some of the plants had been cropped by the cattle. Two of the cows showed very marked depression, complete inappetence and marked lowering of milk yield. Although these symptoms hardly corresponded in any way with the classical teaching, he believed they had been due to the ingestion of water dropwort. One cow recovered after two days, the other after twelve days.

Mr. W. Martin then described a case of suspected poisoning of a Jersey heifer by sulphanilamide. She had been given 4 oz., followed by 2 oz. twelve hours later, when she had staggered and fallen and was still down after four days. The symptoms suggested milk fever, but injections of calcium borogluconate had not affected her condition.

Mr. Holmes reported similar experiences on two occasions. Both animals were Jerseys receiving orthodox sulphanilamide dosage. The symptoms were alarming and similar to those described by Mr. Martin. Both recovered.

Mr. Spratling then described a case of what he had considered to be a true idiosyncrasy to sulphanilamide. Two Shorthorn cows in the same herd, each under identical management, were started on a course of sulphanilamide at the same time. Each was given an initial dose of 3 oz. by the mouth, followed by 1 oz. every eight hours. After three days one cow was in normal health, but the other was in a state of collapse with marked haematuria, her visible mucous membranes being almost colourless. She was sent for casualty slaughter, when no lesions, apart from a mastitis (for which the sulphanilamide had been prescribed), were to be seen. Unfortunately, the speaker had been unable to obtain the kidneys for laboratory examination. He thought this case of interest, as he had seen no reference in the literature to haematuria resulting from sulphonamide medication in cattle, although he believed it had been recorded fairly often in the human subject.

Mr. Edwards believed Mr. Martin had over-estimated the general toxicity of sulphanilamide, since in his (Mr. Edwards') experience symptoms only followed prolonged administration, and then only when an initial dose of at least 8 oz. followed at twelve-hourly intervals by 1- to 2-oz. doses were given. Symptoms of diarrhoea, inappetence and pyrexia then supervened after a five-day course.

Idiosyncrasy might account for occasional animals exhibiting toxic symptoms, but following the moderate dosage mentioned, this could only account for symptoms in a small proportion of treated cases.

Dr. Levi reported that Mr. Messervy had recently shown him a number of cases of sugar-beet poisoning in cows in Jersey. When these roots were given in large quantities (over 60 lb. a day), loss of appetite resulted with coma resembling the milk fever syndrome, and liquid "gurgling" contents of small intestine, with diarrhoea. Treatment was symptomatic, calcium borogluconate being sometimes of value. Transfusions of 2 to 4 litres of blood were also used.

Mr. Holmes described similar symptoms which he had seen in an Ayrshire cow receiving large quantities of mangolds, many of which were sprouting. She was given calcium borogluconate and recovered from the coma during the day. Mangold feeding was subsequently restricted.

Mr. Bell thought that it was generally agreed that many high-yielding cows had only enough calcium in the blood for their normal requirements, and if anything occurred to upset this balance, similar symptoms to those seen in milk fever were at once evidenced. These responded readily to calcium therapy, but there still remained the original trouble to treat, which might be indigestion from any cause, as well as sugar-beet. In Ireland one often used to see the nervous symptoms associated with the condition known as "faudel-bound."

Mr. Edwards asked Mr. Holmes whether the condition of head-shaking in the horse might be attributable to a bridle of tight fit, especially at the brow band, thus causing pressure which might irritate a superficial nerve and cause a local hypersensitivity.

Mr. Holmes replied that he thought this unlikely as the head shaking would also occur when the horse was not wearing a bridle.

Mr. A. Brownlee suggested that the condition might be an allergic phenomenon, and that adrenalin might prove of value as a therapeutic agent.

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a status comparable to that of the department of human medicine. It is not too much to say that the present Minister has not materially affected the policy of this department which over a period of years seems to have exercised an unfair discrimination against the profession.

How can this discrimination be justified? What is its basis? Does it indicate a lack of appreciation of our professional training and the importance of our work, both within and without the Ministry of Agriculture, or is it due to failure on the part of the Minister and officials concerned properly to advise the Cabinet and the Treasury? Whatever the reason, we feel confident that the profession will not submit to such injustices. The profession is in no mood to tolerate arbitrary decisions without reasonable explanation, nor to be content with constant delays. We are confident that a solid front will be maintained to resist the injustices meted out to the veterinary profession, and we urge the Minister to reconsider his decision even at this late hour.

We look to the Special Meeting of the Council to be called to consider these matters to show firmness and unanimity in support of the fight the President and his colleagues are making, not—as it might at first appear—for a single office but for the status of the whole profession.

THE VETERINARY RECORD

August 10th, 1946

REMUNERATION OF THE CHIEF VETERINARY OFFICER

The Status of the Animal Health Division

THE profession will find it difficult to believe that the Minister of Agriculture, after full consideration of the views recently put to him by the President and other representatives of the Association, has decided "that a salary of £2,000 is the most that could be justified for the Chief Veterinary Officer, having regard to the general level of the professional and scientific salaries in this Department and elsewhere in the Civil Service."

No explanation, other than the one indicated which implies that professional and scientific salaries must be graded substantially below those of the lay administrators, is offered in the Minister's recent communication to the President. In a previous letter, however, we were informed that "In making comparison with these other posts regard must be had to the nature of the responsibility carried. . . . I do not in the least underestimate the importance to agriculture—or even indirectly to the health of the human population—of achieving the highest possible standard of health in our livestock. Nevertheless, I cannot agree that the responsibilities of the Chief Veterinary Officer are comparable with those of the Chief Medical Officer of the Ministry of Health."

In view of these statements we venture to suggest that the Minister and his advisers appear to have a breadth of comparability beyond the grasp of most people. It is surely illogical to suggest that to avoid giving two officers an appearance of equivalent responsibility, a salary difference of £1,000 a year must be imposed. Can it be that the Minister and his department are continuing to labour under the impression that agriculture—the greatest industry of this country—must still rank below many less essential industries? If the salary of the C.V.O. is to be so much less than that of the C.M.O. of the Ministry of Health, whose training has been very similar, then why should the Minister of Agriculture and his Permanent Secretary enjoy equality with the corresponding representatives of the Ministry of Health?

There can be little doubt that this decision of the Minister will be rejected by the profession as one which is unjust and based upon premises without reason. The apparent failure of authority to appreciate the elementary fact that a sound livestock industry depends upon disease prevention and control by an efficient and contented veterinary service, is another instance of the way in which Whitehall is out of touch with modern knowledge and practice. It should be known to the authorities concerned that the width and intensity of the course of training for veterinary surgeons are in every way comparable to that for the medical graduate; it extends over the same length of time, there is no remuneration available during training, and costs are equivalent. An increasing number of veterinary surgeons take University degrees or post-graduate qualifications at extra cost, and the standards of ability and achievement of the members of the two professions are comparable at all levels. The veterinary surgeon occupies a key position in the structure of the modern livestock industry, a fact which was emphasised again and again by delegates to the recent Empire Scientific Conference, by the President of the Royal Society of Medicine, and others, not only as regards animal disease but in relation to human nutrition.

There is a further point: the Minister desires the co-operation of the profession in enabling him to implement his plans for livestock improvement, disease control, and educational advancement. It is not encouraging to find him resisting attempts to give to his veterinary department

(Concluded at foot of preceding column)

QUESTIONS IN PARLIAMENT

Questions asked and answered before Parliament rose for the Summer Recess on Friday of last week included the following:—

Further Measures to Improve the Quality of the Milk Supply

"INTENSIVE DRIVE FOR THE REDUCTION OF ANIMAL DISEASES"

In the House of Lords on July 31st, the EARL OF HUNTINGDON, Parliamentary Secretary, Ministry of Agriculture, in reply to EARL FORTESCUE, said that the Government had decided that further measures were necessary to improve the quality of the milk supply. Discussions would soon take place with the interests concerned on an intensive drive for the reduction of bovine tuberculosis and other animal diseases. That policy would take some time to produce results and it had been decided to press on with the heat treatment of milk.

This policy would be applied gradually to urban areas throughout the whole country and then as far as practicable to all rural areas. This would require legislation, which it was proposed to introduce next session.

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MILK PRODUCTION IN SCOTLAND (ENQUIRY)

In the House of Commons, Mr. J. J. ROBERTSON asked the Secretary of State for Scotland what steps he proposes to take for the improvement of the services relating to milk production in Scotland.

Mr. WESTWOOD: I have had this matter under consideration and have appointed an independent committee with the following terms of reference:—

"To review the services at present in operation in Scotland in connection with the production of milk and the quality of the supply, and to consider and report what improvements in those services are desirable and practicable."

The names of the members of the Committee are: John Wheatley, Esq., Advocate (Chairman); Matilda D. Baird, M.A., B.SC., M.B., CH.B.; John Dunlop, Esq.; G. P. Laidlaw, Esq., O.B.E., M.A., B.SC.; Sir Robert Nimmo; John Ronnie, Esq., and Miss Persis L. Wingfield, C.B.E.

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MILK DISTRIBUTION

In reply to Lieut.-Com. CLARK HUTCHINSON, Mr. STRACHEY, Minister of Food, said: I am setting up immediately a small working party of independent advisers to review the whole question of the distribution of milk from the point at which the Ministry of Food takes over ownership to the point at which it is delivered to the consumer. The object of the review will be to make recommendations ensuring that safe clean milk is delivered to the consumer as efficiently and economically as possible. As part of this review the question of retail delivery will be examined, and I propose to ask the working party to give special and early consideration to this matter.

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Veterinary Staff, Ministry of Agriculture (Salary Scales)

General Sir G. JEFFREYS asked the Financial Secretary to the Treasury whether the general responsibility of the Treasury for the adequacy of salary scales of scientific staff of the Civil Service extends to the qualified veterinary staff of the Ministry of Agriculture; and what steps are being taken by him to correlate their salary scales with those of other scientific staff of the Civil Service.

Mr. DALTON: Yes, Sir, but, as regards the salary scales of veterinary staff, I would refer the hon. and gallant Member to the reply given yesterday by my hon. Friend the Parliamentary Secretary to the Ministry of Agriculture. (See *Vet. Rec.* **58**. 346.)

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WARBLE FLY ORDER (REIMPOSITION)

Mr. J. LEWIS asked the Minister of Agriculture if he will now reimpose the Warble Fly (Dressing of Cattle) Order, 1936, suspended during the war.

Squadron-Leader Sir GIFFORD FOX asked the Minister of Agriculture what steps are to be taken before 1947 to deal with the labour shortage which has prevented the reimposition of the Warble Fly Order; and whether he will reintroduce the Order as soon as the labour shortage has been disposed of.

Mr. COLLICK: The operation of the Order which required all cattle visibly infested with warble fly maggots to be treated with prescribed dressing during mid-March to end of June, was suspended in 1942 chiefly because of the impossibility of obtaining supplies of derris and in a lesser degree to shortage of labour. I hope that it may be possible to reimpose the Order next Spring.

Mr. LEWIS: In view of a number of Questions which have been put down on the constant procrastination in regard to this matter, why do we have to wait until next Spring before this Order is reimposed? Hides are being ruined, the yield of milk and meat is suffering, and £130,000 per annum is being lost by the Ministry of Food in regard to these hides.

Mr. COLLICK: Because it is in Spring that the warble fly does its damage.

HON. MEMBERS: Oh, does it?

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FOOT-AND-MOUTH DISEASE

Mr. LIPSON asked the Minister of Agriculture what sum has been paid in compensation during the last reported period for cattle destroyed in consequence of foot-and-mouth disease; and how much has been spent during the same period on research to find a cure for it.

Mr. T. WILLIAMS: The compensation paid during the year ended March 31st last for animals slaughtered because of foot-and-mouth disease was £113,691. The amount spent on research into the disease during the same period was approximately £37,000.

Mr. LIPSON: Can the right hon. Gentleman say whether any progress is being made towards finding a cure, and whether it is proposed to extend research?

Mr. WILLIAMS: I am not sure about the positive steps, but active steps are being taken all the time, and we are hoping that we are on the right track.

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SCIENTIFIC RESEARCH (ALLOWANCE)

Sir E. GRAHAM-LITTLE asked the Chancellor of the Exchequer if he will reconsider a refusal by the Board of Inland Revenue of a claim by Dr. Arnold Renshaw, a distinguished graduate of London University, for his laboratory to be granted special allowance for depreciation in respect of scientific research equipment, in view of the work in medical research carried out by this laboratory for the past 20 years; and whether he will extend the same provision to other laboratories similarly circumstanced.

Mr. DALTON: No, sir. The provisions of the Finance Act, 1944, which grant a special allowance for expenditure on scientific research, apply only to traders and not to persons carrying on professions.

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UNIVERSITY GRANTS COMMITTEE (TERMS OF REFERENCE)

Mr. E. FLETCHER asked the Chancellor of the Exchequer whether he has now considered the terms of reference of the University Grants Committee; and if he is prepared to make a statement.

Mr. DALTON: Yes, Sir. I am anxious that, in this new phase of rapid expansion and planned development of our universities, the Committee should play a more positive and influential part than in the past. The Committee have, therefore, been given new terms of reference, as follows:—

"To enquire into the financial needs of university education in Great Britain; to advise the Government as to the application of any grants made by Parliament towards meeting them; to collect, examine and make available information on matters relating to university education at home and abroad; and to assist, in consultation with the universities and other bodies concerned, the preparation and execution of such plans for the development of the universities as may from time to time be required in order to ensure that they are fully adequate to national needs."

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AGRICULTURAL EXECUTIVE COMMITTEES

Major RAMSAY asked the Secretary of State for Scotland whether he will reconsider his decision to change over from the old W.A.E.C.s to the new district committees in November: and whether he will consider causing the change to take place in the spring of 1947.

Mr. WESTWOOD: I propose to proceed with the appointment of the new area executive committees in November. In order, however, to avoid any possibility of prejudicing the plans now being made for next year's vital harvest, I have decided, instead of setting up the local sub-committees mentioned in my reply of May 14th to the hon. Member for East Fife (Mr. Henderson Stewart), to invite the existing agricultural executive committees to remain in office for a further period for the performance of specific food production duties.

Colonel GOMME-DUNCAN: Can the Minister say whether these committees will have the same powers as they have at present, or will they come under the area committees in any way?

Mr. WESTWOOD: They will have practically the same powers as at present. I want them to continue until such time as we are

through the crisis we are in at the moment so far as food production is concerned.

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Hunting and Riding Horses

Mr. Gallacher asked the Minister of Agriculture whether, in view of the shortage of feeding-stuffs for dairy cows and to prevent hay and oats being directed to hunting and riding horses, he will ensure that all such animals must be put out to grass during the winter months.

Mr. Collick: I would refer the hon. Member to the reply which I gave to my hon. Friend the Member for Kirkdale (Mr. Keenan) on July 17th. My right hon. Friend has no means of ensuring that horses are put out to grass during the winter months.

Mr. Gallacher asked the Minister of Agriculture the approximate number of hunting and riding horses maintained in the country at the present time.

Mr. Collick: I regret that there is no information available. As far as I am aware no census of hunting and riding horses has been taken for several years.

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Tsetse Fly

Mr. Dodds-Parker asked the Secretary of State for the Colonies what progress is being made and by what means, in the experimental elimination of the tsetse fly in the various East African Colonies; whether any success has been obtained from aerial spraying; and whether spraying from a slow-moving helicopter has been considered.

Mr. George Hall: Experimental work on the elimination of the tsetse fly in East Africa has been in progress since 1927 in Tanganyika, where a Tsetse Research Department is in being. The main activities of the department have been devoted to research into the technique of clearing areas of tsetse fly both by entomological means and by reclamation, from "sheer clearing," *i.e.*, the removal of all trees and shrubs from the affected area to "discriminative clearing" which consists in cutting out only those parts of the bush which provide the fly's permanent home. Methods vary according to the type of vegetation and the species of fly encountered. Experiments are continuing and in the past ten years, in Tanganyika alone, 1,150 square miles of land have been cleared and 45,300 persons resettled on the land. An additional 1,130 square miles is in course of reclamation and further areas are being surveyed. As a result of the knowledge gained in Tanganyika, similar methods of reclamation have been adopted in other East African territories. It must, however, be emphasized that in all cases it is absolutely essential that the areas which have been reclaimed should be resettled by human population in order to hold what has been won back. Other experiments include the elimination of tsetse by the removal of game, in a small area of Tanganyika, and research into the use of insecticides, particularly D.D.T. and I.C.I.666, by a Colonial Insecticide Research Unit. The main problem here is the application and dissemination of the insecticide, and research is to be undertaken in this country on suitable apparatus for this purpose. Field trials will be arranged as apparatus comes forward for testing. Further investigation is required into the question of the absorption of insecticides by vegetation. Experiments with repellants are also under consideration. Experiments with spraying from aircraft have been carried out mainly in South Africa. Results so far are encouraging, but further research is necessary on the residual effects of D.D.T. on insects generally, and the consequent effects on the "balance of nature." This is a wide problem which is now under consideration. The use of helicopters has also been considered, but there are technical difficulties connected with the altitude at which the aircraft are required to operate. Further experiments are, however, projected both in South and East Africa as soon as the prototype of a suitable machine can be obtained.

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Cattle Breeding

Replying to Mr. Paget, who raised the question of cattle breeding and suggested the appointment of a commission to consider methods of improving standards, Mr. Collick, Parliamentary Secretary, Ministry of Agriculture, said that British pedigree stock was unrivalled, and its export should be developed. The livestock licensing scheme was constantly being improved. In the artificial insemination centres only bulls of the highest quality were being used. There was already a Livestock Improvement Committee at the Ministry of Agriculture and it was doing much useful work.

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[Owing to shortage of space, some replies are held over to our next issue.—*Editor.*]

THE LONDON CONGRESS, 1946

PROGRAMME

The following is the Programme of the Association's Congress, to be held at the **Royal Veterinary College, Royal College Street, London, N.W.1,** from September 22nd to September 27th (inclusive), except where otherwise stated:—

Sunday, September 22nd

2.30 p.m. to 6 p.m.: Visit to the Zoological Gardens, Regent's Park, as guests of the Central Veterinary Society. Reception at 4.30 p.m. by the President (Mr. S. F. G. Hodgman, M.R.C.V.S.) and Mrs. Hodgman in New Pavilion Cafeteria.

Monday, September 23rd

10.30 a.m.: Opening Meeting of Congress.

11.30 a.m.: Opening of Exhibition of Drugs and Surgical Instruments (including an exhibit of captured German and Italian veterinary instruments, kindly loaned by the Director-General, Army Veterinary and Remount Service).

12 noon: Council Meeting.

2 p.m.: Paper: "Advances in Veterinary Research." By Dr. W. S. Gordon, M.R.C.V.S., F.R.S.E.
Opener of discussion: Dr. H. G. Lamont, M.R.C.V.S.
Chairman: Professor J. Basil Buxton, M.A., F.R.C.V.S., D.V.H.
Recording Secretary: Professor J. McCunn, M.R.C.V.S., M.R.C.S., L.R.C.P.

8 p.m. to 1 a.m.: President's Reception and Dance (Dorchester Hotel, Park Lane, London, W.1).

Tuesday, September 24th

9.30 a.m.: Paper: "Advances in Veterinary Medicine and Surgery in Large-Animal Practice." By Mr. T. Norman Gold, M.R.C.V.S.
Opener of discussion: Mr. H. C. Swann, M.R.C.V.S.
Chairman: Professor T. Dalling, M.A., M.R.C.V.S.
Recording Secretary: Miss J. O. Joshua, M.R.C.V.S.

11.15 a.m.: Paper: "Advances in Veterinary Medicine and Surgery in Small-Animal Practice." By Mr. W. L. Weipers, M.R.C.V.S.
Openers of discussion: Mr. Gordon C. Knight, M.R.C.V.S.; Dr. R. F. Montgomerie, B.SC., F.R.C.V.S.
Chairman: Major Hamilton Kirk, M.R.C.V.S.
Recording Secretary: Mr. W. A. Pool, M.R.C.V.S.

2 p.m.: Demonstrations.

Evening: Theatre Party, arranged by Ladies' Veterinary Benevolent Guild.

Wednesday, September 25th

All day: Visit to Agricultural Research Council's Field Station, Compton, near Newbury, Berkshire.

Thursday, September 26th

10 a.m.: Papers: "War-time Achievements of the British Home Veterinary Services." (*a*) By Mr. J. N. Ritchie, B.SC., M.R.C.V.S., D.V.S.M.; (*b*) By Mr. H. W. Steele-Bodger, M.R.C.V.S.
Openers of discussion: (*a*) Mr. A. McLean, B.SC., M.R.C.V.S., D.V.H.; (*b*) Mr. L. Guy Anderson, B.V.SC., M.R.C.V.S.
Chairman: The President (Mr. G. N. Gould, M.R.C.V.S.).
Recording Secretary: The Hon. Secretary (Mr. T. L. Wright, M.R.C.V.S.).

2 p.m.: Annual General Meeting.
7.15 p.m. for 8 p.m.: Dinner (Grosvenor House, Park Lane, W.1).

Friday, September 27th

10 a.m.: Closing Meeting.

11 a.m.: Council Meeting.

11.30 a.m.: Visit to works and laboratories of Pharmaceutical Specialities (May & Baker, Ltd.), at Dagenham, Essex.

NOTES AND NEWS

Diary of Events

Aug. 14th.—Meeting of the Editorial Committee, N.V.M.A., 2.30 p.m. (Abstracts Sub-committee, 1.45; Clinical Sub-committee, following main Committee.)

Aug. 31st.—Meeting of the Society of Women Veterinary Surgeons at Chester (Queen Hotel), 2.30 p.m.

Sept. 23rd-27th inclusive.—Annual Meeting and Conference of the National Veterinary Medical Association of Great Britain and Ireland, to be held in London.

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Annual Congress, N.V.M.A.

In this issue Members will find a ticket sheet for use in connection with the Congress. They are asked to return this to the General Secretary when completed, not later than September 1st.

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PERSONAL

Births.—Bagenal.—On August 2nd, 1946, at Hertford County Hospital, to Elizabeth Bagenal (*née* Maxted), M.R.C.V.S., wife of Beauchamp Bagenal, M.R.C.V.S.—a daughter.

Greer.—On August 1st, 1946, at Gatley Nursing Home, Manchester, to Elaine (*née* Campbell), wife of Frederick Gordon Greer, R.A.V.C.—a son.

Macleod.—To Margaret, wife of George Macleod, M.R.C.V.S., D.V.S.M., "Tamlane," Dornoch, Sutherland, a son.

Skea.—At "Mountblair," Old Scapa Road, Kirkwall, on Wednesday, July 24th, to Helen, wife of Arthur Skea, M.R.C.V.S., a daughter.

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R.C.V.S. OBITUARY

Crowley, James, Church Street, Listowel, Co. Kerry, Eire. Graduated Dublin, July 23rd, 1906. Died July 21st, 1946.

Heney, Frederick Arthur, 28, Dartmouth Road, Ranelagh, Dublin. Graduated Dublin, December 17th, 1904. Died July 1st, 1946.

Joyce, Martin Joseph, B.A., Veterinary Examiner, Department of Agriculture, Upper Merrion Street, Dublin. Graduated Dublin, July 24th, 1924. Died July 21st, 1946.

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We record with much regret the death, which took place at Pietermaritzburg, South Africa, on July 20th, of the widow of the great veterinary historian, General Sir Frederick Smith.

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DOCTORS AND PRACTICES

"Sale of 'Goodwill' to the State"

The immense correspondence carried by *The Times* on the subject of the National Health Service Bill included, recently, the following letter from Dr. Alfred Cox, former Medical Secretary of the British Medical Association:—

"The Minister of Health is reported to have referred in the debate on the Report stage of this Bill, to his 'generosity' in providing £66,000,000 to buy out the medical practices of this country. As he has previously made this claim it is necessary to examine the facts. The taxpayers' money is being offered in order that Mr. Bevan may carry out his plan to liquidate the independence of the medical profession. No doubt he is quite sincere in his belief that it would be better if all doctors were in the employment, and therefore under the control, of the State. His Bill says in effect to the doctor: 'If you want to take part in the new Service you must sell your practice to the State which will provide £66,000,000 to cover the cost. We will not pay you the money down— the capital value of your practice—until you retire or die, and in the meantime you will receive 2¾ per cent. as interest.'

"The great majority of doctors do not want to sell their practices (or rather their 'goodwill') to the State. They would prefer to sell it in their own time, and in accordance with custom, to a buyer of their own choice. They realize that if the plan of the Minister is carried out they will be literally servants of the State with no hope of escape.

"There is thus no question of 'generosity' in the proposal. It is to be noted that the expenditure of our £66,000,000 is quite unnecessary for any other purpose than that of satisfying Mr. Bevan's ideology, because the doctors would in due course be able to sell their 'goodwill' without any help from the taxpayer."

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ADDRESSES OF DISEASE-INFECTED PREMISES

The list given below indicates, first, the county in which are situated the premises on which disease has been confirmed, followed by the postal address and date of outbreak.

Swine Fever:

Somersetshire.—Hillbarn Farm, Winsham, Chard, Somerset (Aug. 1st).

Worcs.—School Street, Honeybourne, Worcs. (Aug. 1st); Pudford Farm, Martley, Worcs. (Aug. 2nd).

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EFFECT OF GAS POISONING IN FARM AREAS

Ministry Plans in Stirling and West Perth

Experiments which are to be carried out on farming areas in Stirlingshire and West Perthshire to ascertain the extent of poisoning of stock and contamination of crops by gas were explained to a meeting of farmers held at Stirling, on July 25th, under the auspices of the National Farmers' Union and Chamber of Agriculture (states *The Scotsman*). Mr. J. Clark, Killewan, President, Stirlingshire branch, presided, and those present included Professor G. F. Boddie, Royal (Dick) Veterinary College, Edinburgh; Mr. J. N. Ritchie, of the Animal Health Division of the Ministry of Agriculture, and Colonel Ogilvie, of the Claims Department of the War Office.

Mr. Ritchie said that they knew there had been some suggestion that certain crops might be dangerous to stock, and they hoped when the hay crop was available to feed a certain amount of the hay from the area which was apparently contaminated, and ascertain whether bullocks fed on the hay remained healthy. They would also use some hay from a non-contaminated district to compare the two lots of cattle. It was considered if the feeding experiment with hay was negative, and the stock remained healthy, they need not worry about other crops.

In so far as stock was concerned, Mr. Ritchie said they were going to arrange for members of the staff of the Animal Health Division to go round each of the farms where they believed there had been trouble, and to assess the present position as far as they could, making recommendation as to the stock which should be salvaged, either by sending them for slaughter or to the mart. It

was rather difficult to decide what might be done with some of the stock, but their view, and the view of the veterinary practitioners, was that in so far as breeding stock was concerned the best procedure would be to have the breeding stock removed for salvage.

There was also the question of whether the grazing was safe. In addition to the hay feeding experiment, they hoped shortly to be able to put some healthy stock on to selected pastures to see whether they became affected and to test out the safety of pastures.

Both Mr. Ritchie and Colonel Ogilvie agreed that if there was damage to horses, claims for these must be entertained.

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CONTROL OF SCOTTISH DAIRY BY-LAWS

The *Farming News* of August 2nd comments as follows on the appointment (announced in our Parliamentary columns) of a committee to review the services at present in operation in Scotland in connection with the production of milk and the quality of the supply: "Scottish farmers will be interested in the main task of enquiry which will devolve upon the new committee, appointed last week by the Secretary of State for Scotland. That main task is to suggest how, and by whom, the dairy by-laws affecting producers' farms should be administered. For a good many years our milk producers have demanded that the best way to attain uniformity in the application of these by-laws throughout Scotland was to transfer their administration from the county sanitary authorities to the veterinary service at present controlled by the Ministry of Agriculture from London. Along with that demand there was pressure by many farmers for home rule in the Scottish veterinary service. Despite this demand from Scotland, England and Wales received what Scottish farmers asked—administration of all regulations affecting premises for milk production by the veterinary officers of the Ministry.

"Mr. Tom Johnston, when Secretary of State for Scotland, favoured home rule in our veterinary affairs, but he resisted transfer of all powers already exercised by our local authorities. In the interval the Ministry of Agriculture has agreed to a deputy chief of its veterinary service to be in charge in Edinburgh. Beyond that, nothing has been conceded. Now a committee has been appointed by Mr. Westwood with Mr. John Wheatley, advocate (nephew of a former Glasgow Labourist who was Minister of Health in 1923-24) as chairman. It is called an independent committee and its terms of reference are:—

"'To review the services at present in operation in Scotland in connection with the production of milk and the quality of the supply, and to consider and report what improvements in these services are desirable and practicable.' These terms are rather vague but Lobby correspondents state that the Secretary of State is anxious to increase production of good quality milk by all practicable means so as to meet the ever-increasing demand. Such difficulties, they add, as the temporary one of the shortage of feedingstuffs and others of a more long-term character such as those of labour, building and water supplies, are well known. 'But there may be a less tangible difficulty in the fact that the producers are subject to control or inspection by several different authorities, and it is in these circumstances that Mr. Westwood decided that it would be of help to him to have the conclusions of an independent body. Since milk distribution is the concern of the Minister of Food, questions of trade reorganization and matters relating to commercial distribution will be outside the committee's field of enquiry.'"

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ANIMAL DISEASES RESEARCH ASSOCIATION

Dr Russell Greig, director at Moredun, in his report to the annual meeting of the Animal Diseases Research Association, said that on the bacteriological side the problem of mastitis was being actively investigated, but he was not in a position to make any definite statement on the progress of the research. Nevertheless, the spectacular results which penicillin had produced in streptococcal infections in human surgery had encouraged high hopes for its successful application in bovine mastitis. It might be said that while such hopes did not appear to be without foundation, a solid basis of experimental evidence had yet to be laid before the value of the drug could be gauged. Mastitis would continue one of the major researches in the Association's programme.

Grass Sickness

On the subject of grass sickness, Dr. Greig recalled that in 1942 he reached the tentative opinion that the essential cause of the disease was a filtrable virus. But this tentative view was unsupported by positive experimental evidence. Such evidence could be obtained only by the successful artificial transmission of the disease to healthy horses. With this object in view, transmission experiments had been carried out with selected tissues derived from typical acute cases of the disease; the experimental animals were ponies brought from an area in the South of England with the object of minimizing risk of their exposure to a hypothetical, natural infection.

In April of this year one of six ponies inoculated ten months previously developed the typical disease. The question at once arose whether this occurrence resulted from the inoculation; it was, of course, quite possible that it merely represented a natural case of grass sickness, but it, at least, provided encouragement to prosecute, even more intensively, research with the object of determining whether artificial transmission of infection was possible.

Turning to experiments regarding scrapie, he said very solid evidence had just been obtained indicating that the cause of the disease was a filtrable virus, but a very considerable time might elapse before specific means of control could be obtained.

Dr. Greig believed that the problem of the control of pine had been to a great extent solved.

He reported that braxy vaccine still continued to prove very effective, and this year over 185,000 doses were issued from the Institute. Of lamb dysentery serum over 81,600 doses were issued this spring. The serum seemed, with few exceptions, to have proved satisfactory. The issue of louping-ill vaccine approached 227,000 doses.

Government Assistance

Sir Patrick Laird, Secretary to the Department of Agriculture for Scotland, stated that the Agricultural Research Council was looking upon mastitis as one of the really big problems which would need all their resources in the effort to find a solution. The matter was of vital importance, as it was so necessary to maintain and indeed increase milk production in this country, and mastitis was one of the things which was definitely hindering that objective.

With regard to grass sickness, Sir Patrick said they would be gratified if, as the result of the experiments now being carried on, Dr. Greig's original theory should prove to be well founded.

"We know that every Research Institute is going to need more and more Government assistance," said Sir Patrick, "and I am certain that the present Government and all future Governments are going to be more and more disposed to be generous, so long as there is any money to be generous with, towards the promulgation and financing of research work."

CORRESPONDENCE

The views expressed in letters addressed to the Editor represent the personal views of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.

Letters to the Editor should reach the Office not later than by the first post on Monday morning for insertion in following Saturday's issue.

Notice to Correspondents

The Editorial Committee regrets that, the paper supply situation having deteriorated, it has become necessary to ask correspondents again to accept a limitation on the length of letters submitted for publication. Accordingly, contributors to our Correspondence Columns are requested to note that, until further intimation is made, their communications must not exceed 350 words.

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PENICILLIN IN CANINE PRACTICE

Sir,—In recent communications to the *Record* on leptospiral jaundice I have seen no mention of the use of penicillin, which has been found most effective in this condition, either used alone or combined with anti-leptospiral serum. I have used penicillin in a number of cases and where treatment has commenced in the early stages recovery is most spectacular.

1 c.c. containing 10,000 units of penicillin is injected intramuscularly every three hours night and day, recovery with disappearance of icterus is the rule by the time 200,000 units have been administered. If injections are commenced early one morning treatment will only be necessary for two nights.

Similar results have been obtained in treating haemorrhagic enteritis and after-effects of distemper.

In cases of leptospiral jaundice a fat-free diet is adhered to and glucose orally is of great benefit to maintain strength.

Now that penicillin is available to practitioners in England, I feel sure that it will be of great benefit in the treatment of valuable dogs.*

Yours faithfully,

Balrath House, Balrath, Co. Meath. Robin Murphy.
July 30th, 1946.

* Readers, however, are referred to the statements (*V.R.* **58**. 330 and 348) on the present restricted range of application of penicillin released for veterinary purposes here.—*Editor.*